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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

THE WEEKLY NEWSPAPER FOR PHARMACY and all sections of the drug, pharmaceutical, fine chemical, cosmetic, and allied industries

Official organ of the Pharmaceutical Society of Ireland and of the Pharmaceutical Society of Northern Ireland

Volume 179

February 2, 1963

No. 4329

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The CHEMIST AND DRUGGIST

Volume 179

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Greater "Retail" Solidarity

N.P.U. LINKS WITH SCOTLAND AND ULSTER

THE Executive Committee of the National Pharmaceutical Union invited to its January meeting representatives of the Scottish Pharmaceutical Federation and Ulster Chemists' Association as the first stage in effecting closer liaison between the three bodies.

For many years there has been, says the Union, a need for a closer understanding between independent retail pharmacists in Scotland, Northern Ireland and England and Wales. With a view to meeting that need it is proposed that further meetings shall be held between representatives of the S.P.F., U.C.A., and N.P.U. in Glasgow, Belfast and London. Joint action will be taken by the three bodies to safeguard and promote the business interests of their members. The discussions will be confined to the commercial aspects of retail pharmacy and will not include National Health Service matters (which are dealt with in the framework of the Pharmaccutical Whitley Council).

Drug Evaluation

W.H.O. INVESTIGATION

THE Executive Board of the World Health Organisation is considering the clinical and pharmacological evaluation of pharmaceuticals. The "thalidomide question" was brought up at the fifteenth World Health Assembly in May 1962, and a resolution adopted asking the director-general to continue, with the assistance of the Consultative Committee on Medical Research, the study of scientific problems involved in the evaluation of pharmaceutical preparations. A W.H.O. scientific group to be convened in the first quarter of 1963, and the Consultative Committee, scheduled to meet in June will try to determine to what extent the following are possible: (1) To set forth general principles of minimum acceptable standards for drugs; (2) to assure regular exchange of information on the harmlessness and efficacy of the preparation in question; (3) to assure prompt transmission of information on possible serious side effects. On January 17 the Executive Board adopted a resolution asking the W.H.O. Director-General, as a first step, to explore ways of facilitating the exchange of information between countries on serious adverse drug reactions to enable them to take appropriate action to protect the public. The

resolution also recommended that the Sixteenth World Health Assembly (that will meet in May) invite countries to seek agreement on the basic principles and minimum requirements for the toxicological, pharmacological and clinical evaluation of drugs. It also asked that member states report any action taken to prohibit or limit the use of a drug, and the reasons for doing so, in order that W.H.O. may immediately inform other countries.

Disodium tetraborate

A NEW BRITISH STANDARD

A NEW British Standard publication, B.S. 3576, specifies requirements for technical grades of decahydrate, pentahydrate and anhydrous disodium tetraborate. It has been prepared to meet the needs of a wide range of industries using disodium tetraborate of technical quality, and the specifications and methods of test are based on current manufacturing practice. Requirements are given for purity, odour, and pH value of a saturated solution. Two appendices describe methods of test.

Copies of the Standard may be obtained from the British Standards Institution Sales Branch, 2 Park Street, London, W.1, price 3s. each (postage extra to non-subscribers).

Cosmetic Chemists

COLOUR MATCHING PROBLEMS

THE president of the Society of Cosmetic Chemists (Mr. G. A. C. Pitt) presented an illuminated address and a soda-water maker to Mr. A. Herzka in London on December 17, 1962 as a token of the Council's appreciation of his work in organising the 1962 International Congress. The presentation was followed by a lecture on "The Problem of Illumination in Colour Matching," by Mr. K. McLaren, B.Sc., F.R.I.C., F.S.D.C. (dyestuffs division, Imperial Chemical Industries, Ltd.). Mr. Mc-Laren described two different types of colour matches — spectral matches, where the spectral curves were identical and the match is valid under all lighting conditions; and metameric matches, where the spectral curves were not identical and the colours matched only under certain light sources. Both types of match should be made at total average daylight and the match should be made at the middle range of colour temperature. The older standard day-light lamps, based on north sky daylight were not invariable and did not always have the same spectral distribution as daylight. In the U.S.A., north sky daylight was still used as a standard but in Britain the British Standards Institute had worked out a spectral distribution for matching lamps



QUEEN SQUARE INITIATES TRADE "TRIANGLE": Officers of the representative trade bodies of retail pharmacists in England and Wales, Scotland and Northern Ireland photographed in London recently on the occasion of the first of a series of joint meetings of the three associations. Left to right, Messrs. J. Wright (secretary, N.P.U.), N. A. J. Anderson (president, U.C.A.), C. Orrell (chairman, N.P.U.), R. Anderson (member of council, S.P.F., deputising for the president), T. Downie (secretary, S.P.F.) and W. Moffett (member of executive committee, U.C.A.).



Mr. A. Herzka (left) being presented with an illuminated address by Mr. G. A. C. Pitt

based on total daylight. The xenon arc lamp was closest to daylight in spectral distribution but had a few disadvantages, the most important of which was the heavy and expensive equipment required to strike the arc.

Common Market

REACTIONS TO BREAKDOWN

THE following are some of the comments made by industry and commerce on Britain's failure to enter the European Economic Community: -Sir William McFadzean (chairman, Export Council for Europe): "The Council accepts the challenge. We have made incredible exports to Europe. I think

we have to attack more and more."— Federation of British Industries: "The

INCREASED INSURANCE CONTRIBUTIONS

Bill passes second reading

UNDER the National Insurance Bill, 1963, which passed its second reading in the House of Commons on January 29, employers will have to pay an extra 2s. a week each for themselves and to meet increased contributions for their employecs.

When he introduced the Bill the Minister of Pensions and National Insurance (Mr. Niall Macpherson) said that the rates are going up to meet the cost of improved cash benefits. For an employed man not contracted out of the graduated scheme the national insurance part of the joint minimum contribution is going up from 14s. 7d. to 16s. 7d. a week. The industrial injuries part goes up from 1s. 3d. to 1s. 5d., so that, with the National Health Service contribution, the total joint contribution becomes 21s. 4d., of which the employee pays 11s. 8d. (instead of 10s. 7d.) and his employer pays 9s. 8d. (instead of 8s. 7d.).

For employed men contracted out of the graduated scheme as members of recognised occupational schemes, the joint contribution goes up to 26s. 2d., of which employees will pay 14s. 1d. (against 12s. 2d.) and employers 12s. 1d. (against 9s. 10d.).

There are corresponding increases in other flat-rate insurance contributions. The table for self-employed persons (present rates in parentheses) is:

range of graduated contributions, the "equivalent pension benefits" is being increased. The Bill fixes them at £3 9s. 7d. a year for each year of service (£2 18s. for women). "Equivalent pension benefits" represent the amount of pension an employer's occupational pension scheme must provide if he is to contract out of the graduated scheme. They correspond to the maximum provided by the graduated scheme

The "payment in lieu" which an employer makes to the National Insurance Fund if equivalent pension benefits are not preserved for the employee when he ceases to be contracted out in that employment are also increased, from the present 7s. 4d. for a man (8s. 11d. for a woman) for each week of service to 10s. 6d. for a man (12s. 4d. for a woman). In order to give contracted-out employers time to review their position and make any necessary adjustments in their occupational pension schemes in view of the increases in the equivalent pension benefits and payments in lieu, the Bill allows the introduction of those increases to be post-poned until after the contribution in-The intention is that they creases. should remain as at present until January 5, 1964. The revised levels will then apply only to service after that date. About 39,000 "certificates of non-par-

NATIONAL NATIONAL HEALTH INSURANCE SERVICE TOTAL s. d. d. d. 2 10 Men 18 and over 13 (11)16 2 (11 6) Women 18 and over ... 2 11 0 $(9 \ 4)$ 2 13 Boys under 18 (6 5) 1 6 1 (7.11)Girls under 18 6 (6 -6

The Bill does not alter the percentage rate of the graduated contribution but increases the maximum earnings to which it is applied from the present £15 a week to £18. Employees earning up to £15 a weck are not affected, but those earning over £15 a week and their employers will pay more.

The maximum graduated contribution, at present 5s. 1d. a week each for employer and employee, goes up to 7s. 8d. a week for those earning £18 or more, but the extra graduated contri-butions paid will earn additional graduated pension. By reason of the increase in maximum graduated pension that can be earned because of the increased

ticipation" covering about 4½ million employees have been issued to employers who have contracted out of the graduated scheme. Increases in benefits are also a feature of the Bill. The standard rates of unemployment and sickness benefit, widows' and flat-rate retirement pensions are going up from £2 17s. 6d. to £3 7s. 6d. a week for single people and from £4 12s. 6d. to 9s. a week for married couples increases of 10s, and 16s, 6d, a week respectively. The allowance for each child of a person on benefit is also increased as are the guardian's allowance, maternity grant, maternity allowance and injury benefits.

Brussels failure has caused widespread disappointment, but not dismay. Common Market offered opportunities and a great challenge. Some of the opportunities may now have gone, but there will be others. The challenge remains."—Association of British Chambers of Commerce: "Disappointing but not disastrous. Our prime consideration is the expansion of Britain's trade, not only with Western Europe but with the whole world."—Mr. H. J. Gray (director, National Association of British Manufacturers): "We shall now have to work for the expansion of world trade without being members of the Community. This is not a tragedy and, provided we can ensure that the Six act as an outward looking, expanding community, it may prove to be for the best."—Mr. J. C. Hanbury (chairman, Association of British Chemical Manufacturers) told reporters that the industry, which had strongly supported from the outset United Kingdom membership of E.E.C., was obviously extremely disappointed that negotiations had been broken off when they were so near to successful completion. "In common with other sectors of British industry we are now faced with a need for a reappraisal of the whole situation. The negotiations failed on political grounds, and industry now awaits an indication of the new political thinking which should emerge quickly before it can make an assessment of future trading problems. One of these, arising from Britain's temporary ary exclusion from E.E.C., will doubt-less be the extent to which British chemical companies may have to undertake investment within the Six. Meanwhile contact with E.E.C. and E.F.T.A. countries must be maintained. The Association of the British Pharmaceutical Industry, when asked, had no comment to make "at this stage."

Industrial Relations

UNION SECRETARY URGES IMPROVEMENT

INDUSTRIAL relations in Britain today were very unsatisfactory in some ways, said Mr. J. Cooper (general secretary, National Union of General and Municipal Workers) at a "New thinkluncheon organised by the Industrial Welfare Society in London, on January 24. He pointed out that the Trades Union Council were re-examining the trade union structure and he hoped employers would examine their own organisation. Hitherto a distorted wage pattern had emerged which caused injustice. It was high time more attention was given to the vast differences in the levels of remuneration for workers doing the same job.

P.A.T.A.

TELEPHONE OUT OF ORDER

THE bursting of a water main in Southampton Row, London, W.C.1, has affected the telephone service of the Proprietary Articles Trade Association at Premier House since January 26. The Association has been unable to make or receive any telephone calls and it is understood that that situation may continue for some time.

IRISH BREVITIES

THE REPUBLIC

THE office premises of Boileau and Ltd., manufacturing chemists, Bride Street, Dublin, were broken into on the night of January 13-14 and £320 in cash stolen.

THE director and committee of Irish Pharmacy Week record their appreciation to THE CHEMIST AND DRUGGIST for donating a full-page advertisement giving particulars of the 1962 "Week." full-page donating a They are also indebted to the following for subscribing, donating prizes for various competitions, or assisting in other ways: Messrs. Michael Mahony, M.P.S.I., A. Thornton, M.P.S.I., Aneas J. Murray, M.P.S.I., J. G. O'Neill, M.P.S.I., Murray, M.P.S.I., J. G. O'Nelli, M.P.S.I., the United Drug and Chemical Co. Ltd., Leo (Ireland), Ltd., P. C. Cahill & Co., Ltd., Boileau & Boyd, Ltd., Aspro Nicholas of Ireland, Ltd., Ilford, Ltd., May Roberts (Ireland), Ltd., Antigen, Ltd., Lilmar Pharmaceuticals, Ltd., Lyall Smith Laboratories, Ltd., Ayrton. Lyall Smith Laboratories, Ltd., Ayrton Saunders (Dublin), Ltd., Squibb (Ireland), Ltd., Constant Chemicals, Ltd., Crookes Laboratories, Ltd., D. A. Dolan & Co., Ltd., T. P. Whelehan & Sons, Ltd., the Irish Pharmaceutical and Medical Representatives' Association tion, the Irish Drug Association, the Pharmaceutical Society of Ireland, the Irish Medical Exhibitors' Association, Irish Pharmaceutical the Students Association and the Irish Chemists' Golfing Society.

NEWS IN BRIEF

PRACTICAL courses on "Administration and Management of Research and Development," organised by the Comparative Administration Trust, 30 St. George Street, Hanover Square, London, W.1, are being held at Oxford, September 1-28, and at Bromley, Kent, November 10 to December 7.

PART 2 of the National Health Service, Hospital Costing Returns (H.M. Stationery Office £1 2s. 6d.) contains detailed costs incurred during the financial year 1961-62 for a number of lay departments of the hospital, e.g. catering; boiler house, laundry; general administration; works and maintenance; power, lighting and heating.

THE newly formed Institute of Com-mercial and Technical Representatives (see C. & D., December 22, 1962, p. 656), has issued a booklet setting out its objects and qualifications for membership together with its examination syllabus. Copies are available from the secretary, 180 Tottenham Court Road, London, W.1.

SIMPLIFICATION in the Export Credits Guarantee Department system of premium charging is expected to cut average premium rates for business on up to six months' credit by over 8 per cent. Assuming that business continues at its present level the change should reduce E.C.G.D.'s premium income by about £250,000 a year.

LOCAL OFFICERS

GUILD OF PUBLIC PHARMACISTS Liverpool.—Chairman, W. L. Nixon. Treasurer, W. A. Mollon, Secretary, Miss Eileen M. Hirst, Liverpool Stanley Hospital, Stanley Road, Liverpool, 5.

TOPICAL REFLECTIONS

By Xrayser

Branch Representatives' meeting

There is something to be said for the suggestion contained in the Colchester resolution (p. 83) on the subject of a national sign that would readily identify registered pharmaceutical premises. Such signs, conveying a clear message, are to be seen in some countries on the continent of Europe. Emblems descriptive of profession or trade carried on at a place of business have a long history, and almost certainly originated from the need to convey information to a largely illiterate public. I have, on previous occasions, deplored the disappearance from the scene of many signs which I knew in my younger days. The tobacconist, for example, had a picturesque choice ranging from a turbaned Moor to a happily smiling Negro boy and, though I failed to trace the connection, an enormous figure of a Highlander in national costume. One such was to be seen in the Strand for many years, but it has now vanished from the daily scene. A gilded fish projected over the doorway of the fishmonger's, though it was not essential to the prospective purchaser except to draw attention to its presence from some distance away. The butcher, likewise, was recognisable from the model of a bullock of prize proportions, or a sheep which would in life have fetched a record price at a sale. Then there were such ornaments as a gigantic knife or a pair of scissors at the cutler's; a pocket-watch (that creaked in the wind, and of a size, in relation to the real thing, that can only be compared with the Lilliputians' impression of Gulliver's); and perhaps a kettle of large capacity over the door of the ironmonger. I have left to the last what is probably the oldest of all—the three gilded balls, which are believed to have been pills: the pawnbroker's sign; and the most romantic, in the shape of the little midshipman who still fixes his position from the stars in broad daylight in a busy thoroughfare. For the sake of tradition and Charles Dickens, I hope he will continue to adorn a prosaic

The druggist's

It is remarkable that many of those signs were, in fact, unnecessary. As has been said, the presence of the stock at the fishmonger's, evident both to eye and nose, was identification enough, and the watchmaker always displayed a large selection of his wares in the window. Similarly the little midshipman presides over a display of nautical almanacks which tell their own tale. It was once true of pharmacy also, where the window was dressed with a fairly representative selection of drugs and the carboy or specie-jar was centre-piece. If that were not quite sufficient, a glance through the door disclosed a convincing array of shop rounds and ointment jars, which formed an impressive and somehow different backcloth from that found in other shops. There was also an indefinable atmosphere, compounded of such delicate fragrances as fresh infusion of gentian, the same of buchu, and a clean and antiseptic smell produced by an apprentice making camphorated chalk. But today that different appearance has gone, and in its place are so many things that can be seen elsewhere that there is need for a distinctive sign of some kind—or a return to a distinctive appearance that will make the pharmacy itself clearly convey its purpose in life.

A suitable emblem

What would be a suitable sign for pharmacy? The carboy in the window is distinctive and graceful, and never looked better than in the period when it had undisputed occupation of the whole space. But today, I know, it would be regarded as a form of eccentricity bordering on madness. In one of his travel books, H. V. Morton wrote appreciatively of the outsize in pestle and mortar (gilded) which he found above the pharmacies north of the Tweed. Then there are varieties of fluorescent signs. Or there could be a new and standard design which the public might be educated to recognise and to appreciate. Perhaps, in the time intervening between now and May 23, Colchester Branch may feel inclined to give the matter some thought, and make a specific suggestion.

Civil Appropriation Accounts

AUDITOR GENERAL WRITES OF POTENTIAL SAVING OF £800,000

AN analysis of a sample of prescriptions dispensed in England and Wales in the second half of 1961 suggested a potential saving in ingredient cost of about £800,000 a year if unbranded equivalents had been prescribed instead of proprietary preparations. That statement occurs in the report of the Comptroller and Auditor General (Sir Edmund Compton) in the introduction to the Civil Appropriation Accounts (Classes I-V), 1961-62 (H.M. Stationery Office, price £1).

Five Proprietaries

Five proprietary preparations that were prescribed more frequently than their unbranded equivalents accounted for about two-thirds of the potential saving. Sir Edmund records that he asked the Ministry of Health what further action was proposed to reduce the prescribing of preparations for which there were unbranded equivalents, and he was informed that the use of such preparations did not establish that there had been excessive or unreasonable prescribing. The use of such drugs was, however, likely to be brought out during the investigation of doctors' prescribing.

A proprietary preparation with a National Health Service usage of nearly £500,000 a year was about three times the price of exact unbranded equiva-lent prescriptions. The Ministry had calculated that the net ingredient cost to the Service would be reduced by about £200,000 a year if non-proprietary forms of the preparation were prescribed. In discussions with the Ministry the manufacturer pointed out that the product fell within the export price criteria under the Voluntary Price Regulation Scheme, and therefore the price must be regarded as satisfactory. They also claimed that their price was in any case fair and reasonable in relation to their costs and the quality of their product; furthermore the product contributed largely to their substantial research effort. Two other proprietary forms of the same drug, with annual N.H.S. usage of about £40,000 and £19,000 respectively, cost about twice as much as their unbranded equivalents. In those cases the Ministry has decided to defer approaching the two com-panies, one of which does not participate in the Voluntary Price Regulation Scheme, until official standards for unbranded equivalents are available and the application of criterion A.2 (the price of the unbranded equivalent) of the scheme can be reconsidered.

The Committee of Public Accounts 1961-62 (see C. & D., November 10, 1962, p. 522), referred to protracted negotiations with the United Kingdom subsidiaries of four Swiss companies with which the Ministry had made special arrangements for price regulation. On the basis of published accounts up to 1959 and information supplied by the companies, the Ministry was reasonably satisfied that over the whole of their United Kingdom businesses their profits were not excessive. For certain

drugs, however, prices were considerably higher than those of unbranded equivalents, or those in overseas mar-kets and the Ministry had attempted to negotiate price reductions. The Ministry was successful in obtaining a reduction for one drug in March 1962, which was estimated to save the Health Service £190,000 a year, but the manufacturer's profit figures for 1959 and 1960, received in July 1962, showed an upward trend. Sir Edmund says that the Ministry has informed the manufacturers that if the 1961 figures confirm a continuing high level of profit a review of prices will be required. The Ministry has continued to press another company to reduce the price of a preparation, which if reduced to that of its standard un-branded equivalent would save the service £140,000. The company's profits during 1959 and 1960 showed a marked upward trend and the Ministry has informed the company that that calls for immediate action to reduce the price of the product to that of the stan-

dard unbranded equivalent.

Dealing with the Pharmaceutical Services the Comptroller reports that although the number of prescriptions dispensed fell from 241 millions in 1960 to 226 millions in 1961, their total cost increased from £88 millions to £92 millions, and the average cost per prescription increased by 12 per cent. from 7s. 3\frac{3}{4}d. to 8s, 2\frac{1}{4}d. The explanation given for underestimating the cost of

PHARMACEUTICAL SERVICES, 1961-62

	England £'000	Wales £'000	Scotland £'000
Original estimate Supplementary	60,998	4,809	7,270 275
Total	60,998	4,809	7,545
Actual expenditure	61,988	5,139	7,600
Underestimated	990	330	55

the Pharmaceutical Services in England is that "as the result of influenza epidemics, the number of prescriptions due for payment was greater than expected." No explanation is given in respect of the Wales and Scotland deficiencies.

Sample analyses indicate that in 1961 proprietary preparations accounted for 64 per cent, of prescriptions dispensed in England and Wales and 64 per cent. in Scotland and for 88 per cent, and 86 per cent, respectively of ingredient cost, accounting in all for about £54 millions of the total net ingredient cost of £61 millions. During 1961, the average cost of prescribing per person on the doctor's list ranged from £1 10s. 6d. to £2 18s. 8d. for county boroughs and from £1 7s. to £3 4s. 2d. for counties. Sir Edmund says the Ministry has not yet formed any conclusions as to the reasons for the wide differences between the areas. Several studies are in progress which may provide additional information. In Scotland similar wide variations were apparent during 1961, ranging from £1 8s, 2d, to £2 13s, 11d., and a number of small research exercises had been carried out by the Department of Health. In other sections of his report Sir Edmund criticises the methods adopted by hospital authorities in England and Wales when purchasing equipment and he refers to wide variations in costs of hospital furniture.

The accounts also reveal that attendances by Privy Council visitors at the Pharmaceutical Society's examinations were less than anticipated and that there was a saving of £126 of the estimate of £252.

Fees imposed under the Dangerous Drugs Act, 1951, realised £13,016, which was £794 less than was anticipated.

IN PARLIAMENT

By a Member of the Press Gallery, House of Commons

AFTER a short discussion the House of Commons approved, on January 24, the Anti-dumping Duty (No. 3) Order, 1962. The Order imposes anti-dumping duty on imported phthalic anhydride originating in Austria, Poland and the Federal Republic of Germany.

Control of New Drugs

Ouestions about the control and testing of new drugs were addressed to the Minister of Health on January 28 by Mr. K. Robinson and Mr. M. EDELMAN. When Mr. ENOCH POWELL (Minister of Health) said he had nothing to add to his previous replies, Mr. ROBINSON said: "Is the Minister aware . that many representative bodies of the medical profession and pharmaceutical industry favour the setting up of some independent committee for the control of drug testing? Is he further aware that . . many members . . . would not be satisfied with such a committee unless it were under the control of the Minister?" He wanted Mr. Powell to "have that in mind" when he received further advice from the Standing Medical Advisory Committee. Mr. Powell said that he had seen the reports and that was why he thought the question should be maturely considered, although with a sense of urgency, by the Advisory Committee.

Prescription Charges

MR. C. R. Bence asked the Minister of Health on January 28 what would be the annual cost of abolishing all charges on prescriptions. MR. B. Braine (Joint Parliamentary Secretary) told him that no reliable estimate could be made, whereupon Mr. Bence replied that in rural areas many retired people, and indeed workers had to find 4s., 6s., or 7s. for medicines "and very often 3s. for bus fares in order to go to places where the medicines are dispensed. Would he not consider abolishing the charge on medicines altogether?" Mr. Braine said there was no evidence that the

charge had prevented patients getting necessary medicines. The House should know that the cost would substantially exceed the present revenue of £23½ millions.

National Insurance Bill

The National Insurance Bill was read a second time on January 28.

Clinical Research

MR. K. ROBINSON wanted to know what funds had been provided by the Minister of Health for clinical research in hospitals. MR. ENOCH POWELL in a written reply on January 28 stated that major research was not financed from the Department's votes, and information about the cost of clinical research done in the course of treatment was not available. Sums specifically allocated for locally organised hospital clinical research were £91,000 in 1960-61, £119,000 in 1961-62, and £187,000 in 1962-63.

Purchase of Drugs

MR. L. A. PAVITT asked if the Minister of Health would now apply for compulsory licences to allow hospitals to purchase drugs under Section 41 of the Patents Act, 1949. MR. ENOCH POWELL'S reply in a written answer on January 28 was "No." On the same day Mr. Powell also told Mr. Pavitt that he was lodging an appeal against the recent decision in the case of Pfizer Corporation v. Ministry of Health.

Injection Gun

MR. BRAINE informed Mr. E. WAIN-WRIGHT in a written answer on January 28 that the Minister of Health would not make available, on prescription, an injection gun for diabetic patients who were unusually nervous about the use of a hypodermic needle.

Tooth-paste Advertisements

MR. D. GRIFFITHS asked the Minister of Health if he was aware of the misleading nature of many advertisements for tooth-pastes regarding their effect on dental health; and if he would introduce legislation to control the content of such advertisements so far as they related to health matters. MR. POWELL in a written answer on January 28 stated "No."

Research Posts

MR. SYDNEY IRVING suggested the Minister of Health might establish within the National Health Service permanent research posts, with comparable status to that of the consultant, enabling holders to spend the whole of their time on research, but in a written answer on January 28 MR. POWELL rejected the idea and said such posts would be a matter for the Medical Research Council.

Lacquer Hair Sprays

MR. R. E. PRENTICE asked a number of questions concerning lacquer hair sprays on January 28. He wanted to know what steps the Minister of Labour was taking to warn proprietors of hair-dressing establishments about the possible danger to health from lacquer hair sprays and if he would encourage

workers in those establishments to have regular x-ray examinations of their chests. MR. J. H. HARE (Minister of Labour) said the Medical Research Council was conducting an investigation into the possible danger to health from lacquer hair sprays and the factory inspectorate was considering the practical problems, and was about to consult the interested parties. Later he said that he would have powers, if the Offices, Shops and Railways Bill was finally enacted in its present form, to make regulations to protect employees against any injury to health arising from any substance. Mr. Prentice was also told in a written answer on January 28 by Mr. DENZIL FREETH (Parliamentary Secretary for Science) that two investigations sponsored by the Medical Research Council were currently in progress. One concerned the physical properties and chemical composition of the aerosols used in lacquer hair sprays and the other consisted of examination of groups of workers using different types of sprays.

Heavier parcels

In a written reply to MR. PHILIP HOLLAND on January 30, Mr. J. R. Bevins (Postmaster General) announced that he had decided that the weight limit for inland parcels should be increased from 15 lb. to 22 lb. as from February 11. The charges are to be:—for parcels over 15 lb. up to 18 lb., 5s. 9d.; and for parcels over 18 lb. up to 22 lb., 6s. 6d. The maximum weight limit for parcels to the Irish Republic remains unchanged at 15 lb.

LEGAL REPORTS

Checking System Criticised

Criticism of the method used by Boots, Ltd., to cheek their assistants' sales was voiced by the bench at Castle Douglas burgh court recently after a nineteen-year-old Kirkcudbright girl had been placed on two years' probation for theft. She was Ann Naomi Fergusson Simpson, who denied stealing a 10s. note from her eash drawer at the company's Castle Douglas branch on November 21, 1962, or stealing a gold half-sovereign ring from the washroom of a local cafe on November 8, but she was convicted of the offences after a $2\frac{1}{2}$ -hours' trial. The provost said: "The court is surprised at the apparent laxity of the system of cash checking and accounting brought before us in this case. Earlier, while being cross-examined by the accused's solicitor, a security officer described the method used by the firm in checking assistants' takings. He said the method was the same as in all the company's branches.

The security officer told how, along with another security officer, she purchased two pencil torches from Simpson on November 21. She gave Simpson a 10s. note and two sixpences, and they heard her put the coins in her cash drawer. But she did not give them a receipt or wrap the purchases, and when they left the department a few minutes later Simpson was still holding the 10s. note in her hand. They returned to the shop later that day and, along with the manager, examined Simpson's counterfoils, but were un-

able to find any trace of the sale. The branch manager said that a deficiency of several £ hundreds had been found at the annual stocktaking, and after the company's investigating department had talked with him and interviewed the staff they reached the conclusion that the major cause was thefts by the During eross-examination, agreed that the cash drawer in the photographic department, in which Simpson had been employed, was not exclusive to any one person. During evidence Simpson agreed that more often than not the assistants' cash takings showed a surplus rather than a deficiency when compared with the counterfoils. "One week, a while ago, I had a surplus of £12," she said. On behalf of the accused it was said that she might have been slack and at fault in not completing a counterfoil, but there was no direct evidence that she did not put the note into her cash drawer, to which other members of the staff had access. "With that system of accounting, it seems difficult for the firm to establish that they had lost 10s."

Tetracycline Case

THE action brought recently (see C. & D., December 29, 1962, p. 678) by the Pfizer Corporation, New York, U.S.A., challenging the Ministry of Health's right to use the Corporation's patented drug Tetracycline in the National Health Service, was mentioned to Mr. Justice Lloyd-Jacob in the High Court, London, on January 22, when counsel discussed the formal wording of a declaration to be granted to the Corporation on the judgment of December 21, 1962. Mr. John Whitford, for the Corporation, submitted that the declaration should be in the terms that the importation of medicines made in accordance with the Corporation's patents, and the supply of such medicines, was not "making, using and exercising an invention for the services of the Crown." Mr. E. B. Stamp, for the Ministry, asked whether the declaration went so far as to cover agents of the Crown, and the judge said "As I construe the Section, it contained no power to the Minister to authorise a sale by a third party... I also tried to make plain that, if the Minister could properly give a direction for the making, using and exercising of an invention for the services of the Crown, there was implied in that a right to transmit that invention to the Minister. . . . Why I held that the present transaction was not, in my view, within the Minister's authority was because there was no making, using and exercising of the invention in this country by the person authorised." After further discussion as to the wording of the declaration, both counsel said they would agree on the wording and, after signing, would submit it to his lordship for his signature.

A Trade-secrets Contention

THE Court of Appeal, London, on January 4, ruled that Pilkington Bros., Ltd., St. Helens, Lancs, were entitled to an interlocutory injunction preventing one of their research chemists, Mr. James

Peter Procter, Farm Lane, Worsley, Manchester, from joining a rival glass manufacturing company pending the trial of an action brought against him by Messrs. Pilkington. The court allowed the appeal by the company from an earlier decision by Mr. Justice Cross (see C. & D., January 5, p. 6). Lord Denning (Master of the Rolls) said that, in Mr. Procter's employment agreement, there was a clause under which he was bound not to take up employment with any similar business in Great Britain for seven years after leaving the company's employ. Employed by Messrs. Pilkington since 1951, Mr. Procter had comparatively recently been offered a position with Turner Bros. Asbestos, Ltd. The appellant company had submitted that the restrictive covenant was necessary for the company's protection, and to his lordship that seemed, prima facie, only reasonable, Messrs, Pilkington should be able to protect themselves against an employee's going over to someone engaged substantially in a rival business. One had to consider the balance of convenience and see the great harm that could be done to them if Mr. Procter was allowed to go to Messrs. Turner. The trial would concern the question whether or not the covenant was an unreasonable restraint of trade. Lords Justices Willmer and Danckwerts agreed. For Messrs. Pilkington it was said that the company would undertake to pay Mr. Procter's salary until the trial.

COMPANY NEWS

Last year's figures in parentheses.

LEO LABORATORIES, LTD., London.—Mr. T. T. Macadam has been appointed director of sales and promotion for the company.

NICHOLAS GROUP. — Mr. Carl Norman, M.P.S., D.B.A., has been ap-

pointed general sales manager of Nicholas Laboratories, Ltd., and British Schering, Ltd. (Mr. Norman is a director of both companies, and of E.G.H. Laboratories, Ltd.). Mr. Norman will now be responsible for the marketing of "ethical" products in all



territories including the United Kingdom. During the past year he has been international operations controller for the group's "ethical" products.

HICKSON & WELCH (HOLD-INGS), LTD.—Ordinary dividend recommended is 20 per cent, for the year to September 30, 1962 (19 per cent.). Net profit is £421,170 (£369,574), after tax of £353,327 (£310,469).

IDRIS, LTD.—Group pre-tax profits fell by £93,180 to £160,842 for the year to October 31, 1962. The dividend is reduced $2\frac{1}{2}$ per cent. to $17\frac{1}{2}$ per cent., the final payment being 10 per cent. (against $12\frac{1}{2}$ per cent.). After tax of

£57,752 (£117,030), the net balance is £103,090 (£136,992).

ILFORD, LTD.—Mr. J. Mitchell and Dr. G. B. Harrison have resigned from the board while Mr. W. H. Dimsdale has retired from his executive duties as a joint managing director but is remaining on the board. Mr. R. A. Withers has assumed the post of sole managing director in addition to being deputy chairman.

BRITISH OXYGEN CO., LTD.—Group sales for year ended September 30, 1962, increased to £67,987,000 (from £62,510,000) and profits before depreciation were £14,258,000 (£13,836,000). Depreciation was £664,000 greater at £5,890,000, leaving a balance of £8,368,000 (£8,610,000). Net profit after tax was £4,942,000 (£5,387,000). A final Ordinary dividend of 6½ per cent. is recommended, maintaining the dividend for the year at 10½ per cent. Sales of Sparklets products were a record last year—both home and export.

LAPORTE INDUSTRIES, LTD. — Mr. Geoffrey Hickson has been appointed deputy managing director and a deputy chairman of the company. Mr. Frank S. Poole has been appointed a divisional director responsible for the operation of Laporte Chemicals, Ltd., Laporte Titanium, Ltd., Laporte Acids, Ltd., and Peter Spence & Sons, Ltd. Mr. William Woodhall has been appointed a divisional director responsible for the operation of certain of the group subsidiary companies, among them Howards of Ilford, Ltd., and Howards & Sons (Canada), Ltd.

NEW COMPANIES

P.C.=Private Company; R.O.=Registered Office RAYMO PRODUCTS, LTD. (P.C.).—Capital £200. To carry on the business of chemists, druggists, ctc. Directors: Stanley T. Stephenson, John Arnott, sen., John Arnott and John L. Stephenson, R.O.: 157 The Vale, London, W.3.

HUTTON PHARMACEUTICALS, LTD.

HUTTON PHARMACEUTICALS, LTD. (P.C.).—Capital £100. To carry on the business of chemists, druggists, etc. Directors: Annie Crean and Elizabeth Hands, R.O. The Grove, Hutton Rudby, Yarm, Yorks.

RIDGE CHEMICALS, LTD. (P.C.).—Capital £100. To carry on the business of manufacturers of and dealers in chemicals, etc. Directors: Theodore H. Herwald and Hilda R. Herwald. R.O.: 63 Loveridge Road, London, N.W.6.

R.O.: 63 Loveridge Road, London, N.W.6.
BAKTOR LABORATORIES, LTD. (P.C.).—
Capital £100. To carry on the business of chemists and druggists, etc. Directors: David MacLaren and Doris E. MacLaren. R.O.: Ivy House, High Street, Campden, Glos.

High Street, Campden, Glos.

DELLCREST, LTD. (P.C.).—Capital £100, To carry on the business of chemists and druggists, etc. Subscribers: Stanley H. Lucas and Francis A. Dean, 6 Surrey Street, London, W.C.2.

LINGFELL PHARMACY, LTD. (P.C.).—Capital £100. To carry on the business of wholesale and retail chemists, etc. Subscribers: Stanley H. Lucas and Francis A. Dean, both of 6 Surrey Street, London, W.C.2.

Street, London, W.C.2,
DESDA PRODUCTS, LTD. (P.C.).—Capital £1,000. To carry on the business of dealers in cosmeties, etc. Subscribers: Gordon E. Lardner and Jean M. Lardner, 10 Granada Road, Denton, Manchester.

HYGAN PRODUCTS, LTD. (P.C.).—Capital £1,000. To carry on the business of manufacturers of and dealers in chemicals, proprietary articles, etc. Directors: John N. Hewitt and Anthea J. Hewitt. R.O.: 13 Curzon Street, Basford, Newcastle-under-Lyme. Staffs.

castle-under-Lyme, Staffs,
BARIUM & ALLIED MINERALS, LTD,
(P.C.).—Capital £25,000. To carry on the business
for the production and treatment of all barium
minerals and their compounds, etc. Subscribers:
Richard G, Seatoun and Leon Dufour, R.O.: 32
Cliffords Inn, Fleet Street, London, E.C.4.

Voluntary Liquidation

BONETTI, LTD., manufacturing chemists. [R.O.] Mount Pleasant, Alperton, Wembley, Liquidator: H. B. Newton, 3 Courtenay House, Kingsway, Hove, 3.

BUSINESS CHANGES

SANGERS, LTD., are closing down their Newcastle-on-Tyne branch from midday on February 9. The decision, due to a reorganisation, has been notified to customers in the area.

MR. J. H. KEENAN, M.P.S., formerly in business at Central Pharmacy, Camborne, Cornwall, has acquired the pharmacy of Mr. T. N. Hitchings, M.P.S., The Commons, Shaftesbury, Dorset.

S. A. JACKSON (CHEMISTS), LTD., are opening a pharmacy at 79 King Lane, Leeds, 17, early in February. The pharmacy will replace the company's branch at 84A Outland Lane, which is in a redevelopment area.

MILES LABORATORIES, LTD., have formed a new division (Dome) which will specialise exclusively in dermatological preparations. The division's offices will be at Stoke Court, Stoke Poges, Bucks.

Appointments

ARMOUR PHARMACEUTICAL CO., LTD., Eastbourne, have appointed Mr. Kenneth W. Fitch, sales manager for their ethical pharmaceutical division.

WILLIAM R. WARNER & CO., LTD., Eastleigh, Hants, have appointed Mr. Robert Holmes the company's divisional manager, West Africa. Mr. Holmes, who has been liaison executive with the group's recently established affiliate company in Ireland is now in Lagos.

THE hygiene department of Diversey (U.K.), Ltd., has promoted Mr. John Perry (from district manager, North of England) to a post at head office as assistant to the department manager. Mr. P. A. Brant becomes manager of the department's southern division; Mr. J. Finch becomes manager of the department's northern division and Mr. I. D. Lane becomes departmental district manager for London.

PERSONALITIES

MR. G. A. LAUGHTON, who is president of Laughton & Sons, Ltd., Warstock Road, Birmingham, recently celebrated his eightieth birthday and to mark the occasion workers at their two Birmingham factories and at their Sydney, Australia, factory, were given the day off.

MR. A. H. SPIERS, M.P.S., has received a letter of congratulation from the Pharmaceutical Society on completing fifty years as a member. Although now in semi-retirement, he still visits the pharmacy at 217 Clarendon Park Road, Leicester, which he opened forty-five years ago, to help his son who took over about eight years ago.

PROFESSOR G. PAYLING WRIGHT, D.M., F.R.C.P., who has been made a consultant in toxicology

to Shell Research, Ltd., is Sir William Dunn professor of pathology at Guy's Hospital Medical School and honorary consulting pathologist to Guy's Hospital. Until recently he was a member of the Medical Research Council, and at present serves on its biological research advisory committee and on its committee for research on the toxicity testing of drugs.

DR. GEORGE W. PENNINGTON, who has been appointed to the newly created chair of pharmacology in Trinity College, Dublin, graduated M.B., Ch.B., from the University of Liverpool in 1956 and obtained the M.D. degree there in 1959. He holds the degree of M.S. of the University of California. In 1956 he was appointed lecturer in pharmacology in the University of Liverpool, and three years later moved to Trinity College, Dublin, as lecturer in charge of the department of pharmacology. He was promoted reader in pharmacology in 1961. In 1959-60 he spent a period as research assistant at the University of California, Los Angeles, U.S.A. He is the author of numerous papers on pharmacology and related subjects.

DEATHS

ANDREW. — On January 27, Mr. Fred Percival Andrew, M.P.S., 10 Demesne Road, Wallington, Surrey. Mr. Andrew qualified in 1924.

BARKER.—On January 24, Mr. Sidney Barker, M.P.S., Old Mill House Fishing & Country Club, Rockfield,

nr. Monmouth, Mr. Barker qualified in 1913.

BOOTH.—On January 18, Mr. Edgar Booth, M.P.S., Barleythorpe Hall, Oakham, Rutland. Mr. Booth qualified in 1907.

BRIMS.—On January 14, Mr. William Brims, of 25 Marchmont Road, Edinburgh, 10. Mr. Brims qualified as a chemist and druggist in 1909.

BROADBURN.—On January 9, Mr. Edwin A. Broadburn, M.P.S., pharmaceutical chemist, of 14 St. Peters Avenue, Cleethorpes, Lincs. Mr. Broadburn qualified in 1901.

CAITHNESS.—On January 14, Mr. Augustus George Alexander Caithness, M.P.S., 23 Park Road, Westcliff, Essex. Mr. Caithness qualified in 1904.

EPSTEIN.—On January 8, Mr. Hyman Epstein, M.P.S., 12 Roston Road, Broughton Park, Salford, 7. Mr. Epstein qualified in 1916.

GROCOTT. — On January 5, Mr. Eric James Grocott, M.P.S., 57 Watford Road, St. Albans, Herts. Mr. Grocott qualified in 1929.

HART.—Suddenly, on January 21, Mr. Robert Walter Hart, M.P.S., Downfield, Whitenap Lane, Romsey, Hants. Mr. Hart qualified in 1938 after an apprenticeship in Dundee. Since 1948 he had been manager of the Romsey branch of Timothy Whites & Taylors, Ltd. He was well known locally as a musician of talent, although ill health had caused him to give up active participation on the stage

some months ago. He leaves a wife who is a justice of the peace on the Romsey bench, a son and daughter.

HEARN.—On January 5, Mr. Percy William Hearn, 1A Regent Square, Penzance, Cornwall. Mr. Hearn qualified as a chemist and druggist in 1921.

HIGGINSON.—On January 18, Mr. James Edward Higginson, M.P.S., 205 Wigan Road, Westhoughton, Lancs. Mr. Higginson qualified in 1939.

HOOPER. — Suddenly, on January 23, Mr. Patrick Joseph Hooper, M.Sc., A.R.I.C., 29 Foxfield Road, Raheny. Mr. Hooper was managing director of Ayrton, Saunders & Co. (Dublin), Ltd., and held directorships in Brook Chemists, Ltd., Clontarf Road, and Richardsons Manufacturing Chemists, Ltd., Clontarf Road.

LOY.—On January 16, Mr. Robert Loy, M.P.S., 57 Bennet Road, Mapperley, Nottingham, Mr. Loy qualified in 1927.

MIKHAIL.—On December 31, 1962, Mr. Kamal Saleeb Mikhail, M.P.S., The Harpur Memorial Hospital, Old Cairo, Egypt. Mr. Mikhail qualified in 1939.

MOKES. — On January 12, Mr. Tom Mokes, M.P.S., 10 Cherry Tree Lane, North Walsham, Norfolk. Mr. Mokes qualified in 1923.

SHARPE.—On January 16, Mr. John Robert Sharpe, M.P.S., 28 Walnut Road, Torquay, Devon. Mr. Sharpe qualified in 1928.

EXAMINATION RESULTS

Successful Pharmaceutical Chemist candidates

THE following candidates have satisfied the examiners in the Pharmaceutical Chemist Qualifying examination (two year course) held in England and Wales in January (†=Certificate withheld pending evidence of practical training):—

Alvey, Joan M., Birmingham Aston, Christine M., Burtonupon-Trent

Baker, Wondy R., Heswell Buckley, E. R., Ilkeston †Chadwick, Elizabeth, Liver-

†Child, K. J., Greenford Coggins, Marjorie E.

Kidlington
†Collett, J. H., Sheffield
Cozens, B. J., Eastbourne
Cullen, Elizabeth, Liverpool
†Damni, D. O., Huddersfield
Davies, M. I., Swansea
†Dawson, A. M., Hereford
†Draper, Cicely, Sandown
Dwek, C. J., Wandsworth
†Ekwueme, J. O., North
Kensington

Evans, Anne C., Palmers Green

Fevans, E. J. E., Llanybyther Evans, J. D. S., Pontypridd Evans, R. C., Pontypridd Ewing, W. M., Manehester Hale, Lesley, Southampton †Harries, Diann, Bristol Hartley, B. H., Wolverhampton

†Hawksworth, Joan E. D., Southampton Hayes, D. N., Preston

Hilton, A. J., Coventry Hinsley, P. T. P., Bayswater Hodgkinson, Mildred A., Gravesend †Holbrough, Marjorie R., Goole †Hollis, D. A., Horsham †Howell, R., Cardiff †Hoy, Jennifer E., Plymouth †Hundleby, Muriel, Cardiff Isaac, D., Clapton †Johnson, Celia I. D., Portsmouth Kedian, Maureen M., Birmingham †Kelly, S. R., Glynneath Kennedy, W., Blackpool Kurmaly, S. B. N., Southsea †Last, Jcan M., Southport †Lewis, Brenda R., Manchester †Longworth, A. R., Nottingham †McLeod, Frances A. F., Wigan Miller, D. J., Swansea †Mills, Patricia A., Prestwich

†Moore, W. J., Preston

A. O., Chelsea

Musson, D. G., Peterborough Nijkar, M. S., Guildford †Obasa-Porter, Georgina

Heskell, R. E. M.. Worthing

Okoli, D. A. O., Leicester Osmond, B. F., Bletchley †Patel, C. C., Go'ders Green Percival, D. B., Wilmslow Pries, E. A., Larkfield Pritchard, K. J. L., Cardiff Purslow, J., Ealing Rhodes, Wilfred M., New Barnet Roberts, G. A., Denbigh Royle, Margaret A., Blackpool †Shah, I. M., Highgate

†Sheppard, P. H., Newbridge Smith, E. M., Salford †Stitcher, S., Clapton Storr, Margaret P., Wallasey †Stretton, R. J., Alfreton †Thomas, Ann B., Penarth Trigues, P. E., Pinner †Watts, C. F., Northampton †Weaver, G. J., Bristol Welsby, J. C., Liverpool Wilcockson, W. G., Bulwell †Williams, Amy G., Neath Youngman, R. A., Norwich

The following candidates passed in the subjects indicated in Part III of the Pharmaceutical Chemist Qualifying examination (three year course) held in England and Wales in January (a=pharmaceutics II; (b)=pharmaceutics III; c=pharmacology; d=pharmaceutical chemistry III):—

BIRMINGHAM
Allen, D. W., Chesterfield, b
Cox, P. H., Kenilworth, a
Jaworowski, M., Wolverhampton, a
Morgan, I. H. M., Cardigan, e
Newman, V., Wellington, a
Northover, Dorothy, Northampton, a, c
Prince, Joan, Ormskirk, c
Rowlands, Margaret S., Wolverhampton, c

BRISTOL Clein, S. L., Fulham, c Gibbs, J. I. F., Coventry, e Hopkins, B. R., Luton, e L'ewelyn, G., Axminster, b Norman, F. J., Exeter, a Wyatt, M. W., Exeter, a, b, c PORTSMOUTH
Akindeinde, S. A., Paddington,
b, c, d
Allic, O., South Kensington
a, b, c
Banderker, S. O., Earl's Court, d
Belkin, M. E., Golders Green, a
Foster, G. D., Basingstoke, a
Jones, Violet D., Dorstone,
a, c
McCulloch, T. M., Hampton, b
Reder, H. D., Marylebone, b, c
SUNDERLAND
Baker, Kathleen, Durham City,
b;
Charvonia, D. A., Wembley
Park, a, b
Hira, R., Leieester, b

Roberts, C. W., Manchester, a

NEW PRODUCTS AND PACKS

Modified Burow's Solution.—Dome Division of Miles Laboratories, Ltd., Stoke Poges, Bucks, have launched a new speciality Domeboro tablets for use in wet dressings for the treatment of inflammatory, exudative and oedamatous skin conditions. One tablet of the new product in one pint of water makes a solution of aluminium acetate and finely divided suspension of calcium sulphate that delays the drying of the dressing. The white scored tablets are available in pack of twelve (sent out in "shipper" of 1 doz.) and in a dispensing pack of twenty-four 12-tablet strips.

New Strengths Generally Available. —E. R. Squibb & Sons, Ltd., Edwards Lane, Speke, Liverpool, 24, announce the introduction under the names Adcortyl-E and Adcortyl-EG of triamcinolone acetonide in strengths below 0.1 per cent. (the concentration of Adcortyl-A). The new presentations are claimed to permit economies without significant loss of therapeutic activity. Available to hospitals since September 1962, they are being introduced to general practitioners from February 11. Adcortyl-E, containing 0.025 per cent, of the drug, is claimed to have the advantages of proved clinical superiority to 1 per cent, hydrocortisone preparations at the same price level. Adcortyl-EG contains the acetonide in the same concentration as Adcortyl-E, but is associated with Graneodin. Each is available as cream or ointment in 5-, 15- and 50-gm, tubes: and as lotion in container of 15 mils. The 0.025 per cent, concentration is clearly shown on the label of each product. Adcortyl-A preparations continue to be available to the medical profession for use in cases requiring initial or continued use of the most potent preparation available.

A New Sedative/Hypnotic Product. —In a new tablet speciality, Somilan, they have made available, the British Drug Houses, Ltd., Graham Street, London, N.1, claim to have overcome objections to the use of chloral hydrate as a sedative and hypnotic. That oldestablished drug, they point out, long known for its rapidity of action, and producing either sedation or a hypnotic effect according to dosage and conditions, would undoubtedly be the drug of choice as a sedative and hypnotic but for objections of taste, odour and irritant effects. The new Somilan is "virtually chloral hydrate in tablet combining a molecular comform," plex of chloral hydrate with an inert substance betaine. The complex, substance betaine. chloral betaine, is understood to exhibit a therapeutic effect qualitatively equivalent to that of chloral hydrate but, unlike the parent substance, to be less irritant when given orally. Somilan tablet contains 0.87 gm, of chloral betaine (equivalent to 0.5 gm. of chloral hydrate). The pack is a bottle of thirty pearlescent coated, elongated tablets which, by reason of their formulation and coating, are easily taken.

Condition Tablets for Dogs.—Exrid, Ltd., 44 Whitehorse Street, Baldock,

Herts, are launching at Cruft's dog show, February 8 and 9, a new product Exmarid brand condition tablets. The pack contains fifty. Orders should be placed through wholesalers.

Improved Product and Pack.—Bristow's "Star" hair spray has been redesigned for the manufacturers, County



Laboratories, Ltd., Great West Road, Brentford, Middlesex. The new design goes with a change of formula to incorporate recent developments in raw materials, and the perfume has been changed following exhaustive consumer tests to ascertain preferences. A new valve gives a softer, finer spray. The container is in a coral pink shade.

Bubble Bath Oil. — H. Bronnley & Co., Ltd., Bronnley Works, Brackley, Northants, have launched a new bath luxury, bubble bath oil, described as "deliciously tingly, exhilarating and beautifully perfumed in your favourite Bronnley fragrance." Bubble bath oil is claimed to soften the water as it foams and to leave the skin "silkily smooth." The choice of four colours and perfumes (lemon verbena, rose geranium, English fern and lavender) corresponds with Bronnley's turtle-oil soap, hand lotion and talcum powder.

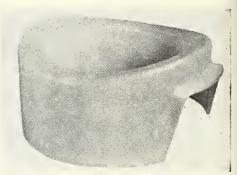
Redesigned Sachet.—B. N. Furman (Productions), Ltd., 152 Fonthill Road, London, N.4, have redesigned the refill sachet of their Pride hair lacquer. The company's trade mark on the sachet is now accompanied by the almost equally well known "winking lady" (both identified with the company's advertisements in the national Press). The opportunity has been taken to introduce dual-coloured sachets (white front, black back; pink front, black back; clear front, pink back, each with black print); and to reduce the price.

A Hair Spray from Italy.—Ivo M. Lechner (Italian Labs., Ltd.), 33 Newman Street, London, W.1, are launching in this country another Misslyn speciality: a hair spray claimed non-allergic and non-toxic. Misslyn hair spray has been formulated to give a lustrous sheen to the hair and to "keep it in its natural contours all day long."

It is stated to contain no shellac and to be crystal clear, leaving no deposit. Presented in the same style as the other members of the series, Misslyn hair spray is understood to be the only Italian hair spray on the British market. The canister pack is sent out in outer of 1 doz.

Medicated Make-up. — "Natural Wonder," a new make-up range of Revlon International Corporation, Ltd., 86 Brook Street, London, W.1, is claimed to have "a vital difference-healing medication." In each of the products the cosmetic components are blended with "a healing antiseptic." The range includes matte make-up; liquid make-up and pressed powder. They are on sale to the public from April 8.

Baby's Non-tip "Potty."—A baby's "potty" of non-tip design was introduced by Ekco Plastics, Ltd., Southendon-Sea, Essex, at the recent nursery



trades exhibitions in Manchester and London. Moulded in soft polythene, it has a wide concave rim ensuring comfort and security for the baby. A convenient handhold replaces the more conventional handle. Completely hygienic and easy to clean, the new "potty" is available in blue, pink, lemon or natural colour.

Triple-foam Hospital Mattress.—The Relyon triple-foam hospital mattress of Price Bros. & Co., Ltd., Wellington, Somerset, has now been in use at many leading hospitals for over three years. The mattress combines a firm core of polyester foam with outer layers of softer polyether foam, giving maximum comfort. However heavy the patient, the core is claimed, after the initial softness, to give even and firm support. It is designed to bear in equal comfort a small child or an adult up to 20 stone in weight, and may be washed or auto-claved repeatedly, it is stated, without deterioration. The mattress is easily turned or carried by one person, and "nurses who have handled these mattresses do not like returning to other types." Cases are on record in which bcdsores have healed naturally on transfer to the mattresses, probably by absorption of local pressures in the soft polyether foam. One test made was twenty autoclavings at 10-lb. pressure and ten at 20-lb. pressure, with no measurable change other than in col-There is, however, considered little need for autoclaving, since foam is inert to bacterial growth. In tests with Aerobacter aerogenes, Bacillus subtilis and Staphylococcus aureus the foam was transferred, after a contact of 60

minutes, to a nutrient broth and incubated at 25° C. for 48 hours. In all the tests, especially those with S. aureus, an inhibition of growth was observed. The contribution to hospital hygiene offered by the mattresses is enhanced if Relyon

TRADE NOTES

Discontinued. — Beecham Research Laboratories, Ltd., Great West Road, Brentford, Middlesex, are discontinuing the 1-mil ampoules of Wright-Fleming vaccines acne A, acne B, rheumatic (50 million) and rheumatic (500 million). The 10-mil vials continue to be available.

New York Holiday Prizewinner.—Final judging in a competition organised by Pifco, Ltd., Watling Street, Manchester, 4, in which entrants were required to place in order of importance four phrases describing Pifco appliances and to complete a rhyme took place in London on January 24. Winner was Mrs. K. M. Staniforth, Deepcar, nr. Sheffield, who gains a New York holiday by Aer Lingus 'plane. There were sixty other prizes (of Pifco appliances).

Distribution Changes.—D.C.L. Tartan brand malt products, vitamin B₁ yeast tablets, yeast tablets, B.P.C., and yeast powder, B.P.C., previously supplied by the DISTILLERS Co. (BIOCHEMICALS), LTD., are now being distributed by the Distillers Co., Ltd., malt-extract sales department, 12 Torphichen Street, Edinburgh, to which address all orders and inquiries should be sent.—Supplies of Cutipen and Nutrinail (and refills) should henceforth be ordered from trade wholesalers or direct from Foster-McClelland Products, Ltd., Cornwall Road, Hatch End, Middlesex. Introductory bonus terms are available on orders sent on special reply-paid cards obtainable from the company.

More Tissues in Packs. — Kimberly-Clark, Ltd., Larkfield, Maidstone, Kent, have increased by 10 per cent. the



number of tissues in both boxes of white Kleenex. The offer is featured prominently on the packs by means of yellow flashes bearing the words "Free—10 per cent. Extra Tissues" and "Cold Season Offer."

A Painless (?) Take-over.—Tindale's, 14 Skinner Street, Whitby, Yorks, are in the unusual position, for a pharmacy, of having taken over a nationally known proprietary which, owing to reorganisation, its owners had ceased to produce. Messrs. Tindale's point out that they had been selling Mascot liquid inhalant for about forty

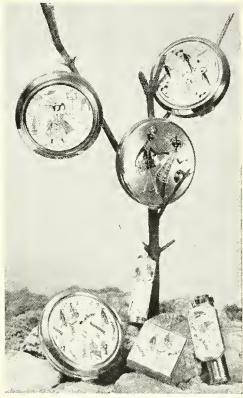
proofed "briflon" covers are used, for the covers may be washed or autoclaved without harm. Over a long period there may be discoloration from incontinence or autoclaving, but the efficiency of the covers is unimpaired.

years when, in 1962, Thomas Harley, Ltd., Perth, joined the Rentokil Group, "and out went Mascot." Customers complained and said that nothing else was as good. The proprietors of the pharmacy wrote to Messrs. Harley and found that they had "made a take-over bid" for they were given the product, lock stock and barrel. In the take-over they were helped quite a lot by the original owners, but of course have now to take full marketing responsibility. A new company, Mascot Laboratories (Whitby), Ltd., has been registered, a warehouse converted into a filling and production department and a filling machine installed. After a busy time filling and packing stock, they now have enough, they say, to deal with anything but avalanches! They "cannot afford to plunge into advertising" at this stage, but are allowing the retailer a generous margin (more than a third on cost, excluding purchase tax, with an additional 5 per cent. for cash with order) and hope to increase it later. Two Northern wholesalers (Bleasdale,

Ltd., of York, and Middleton & Co., Ltd., of Middlesbrough) are carrying

stocks, and an agency representative is covering the Sheffield/Doncaster area. Diary Corrections.—Subscribers are asked to make the following corrections in their copies of the C. & D. Diary and Year-book, 1963:—DENTAL HEALTH PROMOTION are now at 52a Redcliffe Road, London, S.W.10 (telephone number: Flaxman 2852). JESSOP & Co., LTD., 17 Philpot Lane, London, E.C.3, point out that their name should have appeared under the entry (p. 178) for "Sulphur Precipitated, B.P." — The telephone numbers for Molasses Products, Castle Donington, nr. Derby, and Protein Pro-DUCTS, Castle Donington, nr. Derby, should read 316 and 317 respectively. —Morgan's Pomade Co., Ltd., 122 Maidstone Road, Foots Cray, Kent, point out that the wording on their display advertisement on p. 28 should be "available in bottles and sachets" and not as stated. — GLAXO LABORA-TORIES, LTD., Greenford, say there should have been included with the entry for Tricloryl tablets (p. 183) the words "(monosodium triclofos)".— Entries for Barquinol, Dimyril cough linetus and capsules and Genasprin should have been included in the list of products manufactured by GENATO-SAN, LTD., Loughborough, Leics, and entries for two of the company's items, Levonor tablets (p. 141) and Psorox (p. 163) should have been spelled as here given. — PFIZER, LTD., Sandwich, Kent, accept orders for products manufactured by Boehringer Ingelheim, LTD., but any other inquiries relating to those products should be addressed to Boehringer Ingelheim, Ltd., Isle-worth House, Great West Road, Isleworth, Middlesex.

At Gifts Fair.—A. S. Brown & Co. (MFG), LTD., 79 Coborn Road, Bow, London, E.3, are showing at the International Gifts Fair, Blackpool, Lancs, February 4-8, their 1963 range of compacts, lipsticks, and pill boxes. The company started in 1962 a pilot scheme of powder compacts with a teenage appeal that has proved successful in this country, Europe and North America. On that experience is based the new range. To meet a growing demand for pill or tablet boxes, the company has introduced two new shapes, one contemporary and one antique, in new finishes. The square



tablet/pill box is available, also in new finishes. Also introduced is a matching range of handbag accessories (powder compacts, pill boxes, cigarette cases, lipsticks, lipstick mirrors, and perfume "dispensers" and a lipstick "bar" for dressing-table use, enabling lipsticks, perfume "dispensers" and other beauty helps in pencil shape to be kept in good order on the dressing table.—Andre Philippe, Ltd., 71 Gowan Avenue, London, S.W.6, are exhibiting at the International Gifts Fair (stand No. 304, Winter Gardens) their range of André Philippe products, including many new items for 1963. Specially featured are Softaire liquid shampoo sachets in new film laminates, issued 3 doz, to the outer.—The latest Stratton range of powder compacts of Laughton & Sons, Ltd., Warstock Road, Birmingham, 14, is on display during the International Gifts Fair at Room 1, Metropole hotel, Blackpool.

Bonus Offers

EXMARID, LTD., 44 Whitehorse Street, Baldock, Herts. Exmarid brand lotion and condition tablets for dogs. Twelve invoiced as eleven, tax excluded. During Cruft's dog show and for limited period.

INFORMATION WANTED

The Editor would appreciate information about: Dr. Shute's Vit-E-balm

BRANCH EVENTS

EAST METROPOLITAN

Talk on "Colour"

About twenty members of the East Metropolitan Branch of the Pharmaceutical Society and their friends braved the arctic conditions on Janu-ary 23 to attend a lecture at Stratford, given by Mr. N. Cooper (Ilford, Ltd.) on "Colour—by Ilford." In an informative talk in a non-technical style, enlivened throughout with amusing anecdotes, Mr. Cooper gave an account of the methods of processing Ilford materials. He stressed the difficulties of marketing a new colour material, such as machines failing at the most crucial point and solutions given by the "boffins" not producing the ex-pected result, and then traced the history of colour photography from the work of Clark Maxwell in 1825, when he produced the colour picture called "Tartan Rosette," on through the Agfa integral tripack to the present. Finally Mr. Cooper showed colour slides illustrating the processing of transparencies, how the amateur fell into the common pitfalls, and how they might be corrected to give first-class pictorial results.

SWANSEA

N.P.U. Regional Meeting

A MEETING of the Swansea and neighbouring Branches of the National Pharmaceutical Union, held in Swansea on January 16, was addressed by Mr. C. ORRELL (chairman, N.P.U.). In a challenging and forthright talk on "Your Business is our Business," Mr. Orrell said that private retail chemists should improve their pharmacies by indulging in shop modernisation—even a small alteration such as improved lighting was a step in the right direction. The marketing committee of the N.P.U. was constantly exploring means to help private individual pharmacies, and systems should be adopted in shops whereby the speed of stock turnover and discounts received could easily be checked. Mr. Orrell also spoke of "group buying" which he said could be successfully applied to improve the position of pharmacies in general. The address provoked considerable discussion, and was thoroughly enjoyed by members. Mr. G. T. M. David (chairman, N.P.U. marketing committee) proposed a vote of thanks to the speaker, which Mr. R. Williams seconded.

ROMFORD

Record Sum for Benevolent Fund

A RECORD contribution of over £50 was raised for the Benevolent Fund in a raffle at the annual dinner and dance of the Romford Branch of the Pharmaceutical Society on January 23. Mr. L. Nor-WICH (Branch chairman) presided and proposed the only toast, that of "Pharmacy." His comments were mainly on travellers, whose job, he said, was far from easy, for they had to work in somebody else's day, and that somebody seemed always pushed for time. Over the years chemists had built up a sales resistance to travellers, and some doctors were sceing medical representatives by appointment only. would salesmen overcome How obstacles like that he was bound to wonder. Guest of the evening and responder to the toast was Mr. ALLEN ALDINGTON (a member of Council), who proclaimed himself an enthusiast for pharmacy and proud of the Society-"the finest in the world." Through Through the years the pharmacist had developed a friendly service for the public, and he should be the sole channel for the supply of medicines. Medicines were not normal merchandise, and should not be available from store counters or slot machines, or sold by people who did not understand them. Co-operation with medical colleagues was increasing throughout the country, and the pharmacy was becoming accepted as the place where information on all things concerning drugs was available. That was all to the good.

NEWPORT

Dinner and Dance

The annual dinner and dance of the Monmouthshire and Newport Pharmacists' Association and Branch was held in Newport on January 17. Despite the arctic conditions, about 200 people arrived from the snowy wastes of Monmouthshire to hear MR. J. C. HANBURY (chairman, Allen & Hanburys, Ltd.) reply to the toast "The Pharmaceutical Profession" proposed by MR. W. T. DUNCAN (Association president). Mr. Hanbury informed his



N.P.U. CHAIRMAN AT SWANSEA: Guest speaker of the Swansea and District Branch of the National Pharmaceutical Union on January 16 was Mr. Clifford Orrell, the Union's chairman (second from left), here seen with Messrs. Wendell Nicholas, G. T. M. David (vice-chairman, Central N.H.S. (Chemist Contractors) Committee), Islwyn James (Branch chairman), W. S. Francis, I. W. Stanford, B. Jones and B. Evans. (Photo: South Wales Evening Post

audience of a long family connection with the county and with the tinplate industry at Pontypool. Mr. G. F. H. Davies proposed the toast to the guests, to which Alderman W. Pinnell (deputy mayor of Newport) replied, promising another bridge over the Usk before the 1965 British Pharmaccutical Conference in Cardiff, thus eliminating the present bottleneck at Newport. The president presented a cheque to Mr. L. J. Ley (secretary. Monmouthshire and Newport Executive Council), adding the wish that his approaching retirement would be long and happy. The remainder of the evening was spent dancing (or "twisting") and the revellers were fortified with a bowl of hot soup each before venturing out into the cold.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

An Outburst of Price Cutting

SIR; — On behalf of South Shields chemists I would like publicly to thank the Winthrop Group for taking action, through the Proprietary Articles Trade Association, to protect the prices of their goods on sale in "China Craft." That organisation, in an advertisement after the hearing, said "We are sorry that we must now sell you Andrews liver salt at the correct price. We will attempt to make it up to you with the following prices." Then followed seven lines of County Laboratories: nine of Gibbs-Pepsodent; three of Smith & Nephew; three of Chesebrough-Ponds; all at cut prices. Before all pharmacies sink to the level of those portrayed by Mr. Talman (see C. & D., January 19, pp. 67-70), perhaps all pharmacists will protest strongly to those manufacturers.

T. Darke, Chairman, South Shields Pharmaceutical Association

Suicidal

SIR,—It would appear that once again large commercial interests are asking retail pharmacy to help in its own demise. A large organisation is offering "to chemists only" a banded pack of two packets of sanitary towels, in a "four-pence off" deal, in order, they say, to allow pharmacists to meet price cutting in supermarkets. If this firm is really worried about price cutting in supermarkets, they can stop it right away themselves. But if chemists take this offer and do well with it, that fact may be used to encourage those buyers in supermarkets who, so far, have not thought that this line was one suitable for price cutting. "If pharmacists, who are traditionally conservative, can cutprice this line, so can you," may well be the future approach to these buyers. We will survive by insisting that medical products must be price-protected in the public interest, and refusing to be used by large organisations who care only for turnover, and do not care if pharmacy perishes in the process.

J. P. KERR,

Newcastle-on-Tyne, 6



GUILD OF PUBLIC PHARMACISTS

Council and branch delegates' meetings

IT was agreed at a meeting of the council of the Guild of Public Pharmacists in London on January 25 that letters should be sent to secretaries of Regional Pharmaceutical Advisory Committees asking them to survey the annual needs of their regions for dispensing assistants and the numbers that could be trained. It was recommended that advice should be given to hospital pharmacists generally not to train more assistants than could be assimilated into the service. Training schemes should also be considered and suitable arrangements made.

Evidence which the Guild intended to submit to the Scottish Committee on the Hospital Pharmaccutical Service had been considered by the Executive Committee in December. It was approved by Council for forwarding to the Committee.

It was reported that a full staff side meeting of the Pharmaceutical Whitley Council (committees A, B, and C) had been held at which the importance of making the published J.I.C. scales correspond more nearly with actual retail salaries was stressed. A subcommittee had been formed to seek to establish the proper rôle of the pharmacist and the minimum salary that his scrvice should command. A new formula for the calculation of points for determin-ing the categories of senior grades of hospital pharmacists had been submitted to the management side of the points subcommittee. The claim for the title and the appropriate salary of group pharmacist for those pharmacists in charge of groups in which no other chief pharmacist was employed was continuing to be pressed. A circular (PH 30) notifying revised salaries for locum pharmacists, post- and pregraduate students following the increases in hospital pharmacists' salaries awarded by the Industrial Court was in draft but could not be published until details were finally agreed.

It was decided that there should be two Evans medals awarded in 1963—to Miss M. C. Islip and to Mr. S. Powlson.

After the meeting a dinner was held to honour Mr. B. O'Malley on his appointment as publications manager to the Pharmaceutical Society. In addition to Mr. O'Malley, Messrs. O. Waller, R. Blyth and F. Conyers (editors of THE CHEMIST AND DRUGGIST, *Pharmaceutical Journal*, and *Pharmacy Digest* respectively) and Mr. W. K. Fitch were guests.

Branch Delegates' Meeting

The twelfth branch delegates' meeting of the Guild was held in London on January 26 and was attended by thirty delegates and the majority of council members.

Among the motions carried were those in favour of a claim for an increase in the higher qualification allowance; the reconsideration of the number of lectures normally given by pharmacists to nurses and the fees paid for them; establishing with the Ministry of Health that the testing, buying, stor-

age and issue of surgical dressings is the responsibility of hospital pharmacists; and a request that the Council of the Pharmaceutical Society should be asked to place the view before the Minister of Health that the attitude expressed by representatives of the management side of the Pharmaceutical Whitley Council, Committee C, at the recent Industrial Court was derogatory to the hospital pharmaceutical service. A motion calling upon the Guild

council to ask the Pharmaceutical Society to co-operate in instituting and arranging the syllabus for a diploma in hospital pharmacy and to consider awarding the Fellowship of the Society to holders of the diploma who also have five years' experience as hospital pharmacists was approved by a large majority. A motion from the Yorkshire Branch gave the president an opportunity to answer questions on the Guild's present policy on salaries, All the resolutions callings for steps leading to closer working with a trade union were defeated.

A TABLET MANUFACTURER EXPANDS

Growth quadrupled in three years

EXTENSIONS that give Inter-Alia Pharmaceutical Services, Ltd., four times the previous working area of their factory at Thetford, Suffolk, were formally opened on January 25 by Sir Edward Brown (chairman of the Concompany on having proved itself ready for the challenge of change, and on the fact that 80 per cent. of its production went for export. The deputy mayor of Thetford (Mrs. J. Anderson) declared the company's progress was



Edward (chairman of the Conservative Party's industrial relations committee) formally declares open additional factory units of Inter - Alia Pharmaceutical Services, Ltd., at Thetford, Suffolk, on January 25, switching before one of the multi-punch tableting machines. At left of picture is Mr. R. Simons (managing director of the com-

[Photo, Eastern Daily Press.

servative Party's Industrial Relations Committee). Sir Edward symbolised the opening by switching on, in the presence of many invited guests, one of a battery of multi-punch tableting machines now assembled in the new extension.

After inspecting the machinery and equipment — now capable of turning out tablets in numbers greatly above the output at the time the original factory was described (C. & D., December 30, 1961, p. 699) — the visitors were shown, in another building, the operation of the heat sealing of foil-wrapped tablets. They were then taken to lunch, at which Sir Edward congratulated the

gratifying to the borough and its officials. Mr. Raphael Simons (managing director) acknowledged the ready cooperation the company had received from the London County Council and borough council. The company's output placed it among the leaders in its field. Its success, particularly in the export field, had been achieved in the face of innumerable obstacles, against keen competition, and in a period of rising prices. British manufacturers must work hard to ensure that British goods were best, and the Government should give a greater contribution towards encouraging the smaller exporters.



TROPHY LINE-UP: Gillette Safety Razor Co.'s top sales team, Winners of the company's "districtof-the-year" award for the second successive year, the central London team received inscribed tankards from Mr. Henry Garnett (divisional director), fourth from right.



For Retailer, Wholesaler and Manufacturer

ESTABLISHED 1859

Published weekly at 28 Essex Street, Strand, London, W.C.2

TELEPHONE: CENTRAL 6565

TELEGRAMS: "CHEMICUS ESTRAND, LONDON"

Common Market Failure

AFTER sixteen months of negotiations, Britain's request to join the European Economic Community has been turned down for what are, according to Mr. Edward Heath (leader of the British delegation) "political reasons." Towards the end of the negotiations it became clear that five of the six members of the Community could have reached a settlement with Britain but the sixth member, France, stood firm on the unmodified Rome Treaty conditions of entry. As all the members of E.E.C. had to agree before Britain could join, and as France was prepared to veto the application, the talks broke down.

What happens now? The Government will no doubt have been examining, during recent weeks, alternatives aimed at expanding trade, but it must be remembered that the more obvious alternatives would have been previously examined and turned down as second best to E.E.C. membership. A hopeful factor so far as the pharmaceutical industry is concerned is that, despite the higher tariffs that Britain has had to meet, exports of pharmaceuticals to Common Market countries showed a rise of £½ million in 1962.

Manufacturers Under New Pressures

STIMULATED by the Comptroller and Auditor-General, the continuous two-way attack on "ethical" proprietary products that has been pursued for some time by the Ministry of Health seems likely to be stepped-up in intensity, and maybe in range. That will be the effect if the latest report of the Comptroller and Auditor-General (Sir Edmund Compton), which accompanies the Civil Appropriation Accounts (Classes I-V), 1961-62 (see p.

110), is acted upon in the way he wishes.

In it Sir Edmund records his questions to the Ministry of Health on whether further action was proposed to reduce the prescribing of preparations for which there were standard unbranded equivalents. He had noted, said Sir Edmund, that an analysis of a sample of prescriptions dispensed in England and Wales during the latter part of 1961 suggested a potential saving in ingredient cost of about £800,000 a year if unbranded equivalents had been prescribed instead of proprietary preparations. Five proprietary products that were prescribed much more frequently than their unbranded equivalents accounted for about two-thirds of the potential saving.

The replies by the Ministry to Sir Edward's questions suggest that the doctors and the manufacturers are again to be the object of pressures by the Ministry. The doctors are to receive edited lists of official preparations that are available in branded and unbranded forms, together with details of their comparative prices, based on National Health Service usage. Similar action has been taken previously but doctors, like most other members of the community, have shown a preference for branded rather than anonymous products.

Certain manufacturers are to be pressed to reduce the prices of their proprietary products, even though those prices have been negotiated—and agreed—under the Voluntary Price Regulation Scheme arrived at between the Ministry and the Association of the British Pharmaceutical Industry.

As Sir Edmund recapitulates in his report, Part A of that scheme provides that, after a three-year period of freedom from control, prices may be determined by reference to the first of the following criteria that can be applied: (1) The export price; (2) the price of the unbranded equivalent; or (3) a trade price formula. Part B of the scheme provides that a price may be negotiated separately if Part A is inappropriate or considered unsuitable by the manufacturer, or if the Ministry so opts in the case of a patented preparation that qualifies for the export-price criterion in Part A, but is in demand to meet prescriptions, in all brands and dosage forms of over £500,000 a year.

One manufacturer who had been informed by the Ministry that it was disturbed to note the price of his preparation was considerably greater than that of the exact unbranded product pointed out that the product fell within the export price criteria, and that the price must therefore be regarded as satisfactory. He added that there was no basis for applying criterion A2 (the price of the unbranded standard equivalent) because, though the preparation appeared in the British National Formulary, official standards had not yet been published in the British Pharmacopæia or British Pharmaceutical Codex, and there was, therefore, no official standard equivalent. The Comptroller reports that further discussions are being held between the manufacturer and the Ministry.

In respect of two other preparations costing about twice as much as their unbranded equivalents, the Ministry proposes to defer approaches to the manufacturers "until official standards for the unbranded equivalents are available and the application of criterion A2 of the scheme can be reconsidered."

That section of the report causes us special concern, for it may imply that the British Pharmacopæia and the British Pharmaceutical Codex are being used, not for the purpose for which they were intended, namely of establishing standards, but as a lever for political pressures by the Government of the day. That might mean that the choice of monographs to be included in future editions of the Pharmacopæia were having to be made in face of strong pressure, colouring the judgment of the compilers. That would indeed be a step to be avoided.

Overseas Trade in Pharmaceuticals

EXPORTS of drugs, medicines and medicinal preparations during the year 1962 passed the £50 millions mark for the first time. The value was 3 per cent. higher than in 1961, in which year also a record level was registered,

and a 10 per cent. increase over 1960. Unlike 1961, when the percentage increase for pharmaceuticals was well ahead of the country's total export increase, the pattern for 1962 closely followed exports as a whole

(which also finished the year 3 per cent. up). Timing was also similar, in that the value increased rapidly during the first half of the year, followed by a flattening out in the second half, dissipating most of the early gains.

EXPORTS	DECEMBER 1962	YEAR 1962	YEAR 1961
Drugs, medicines, medicinal pre-	£	£	£
parations (total)	3,999,288	50,176,570	48,762,478
Vitamins	274,205	3,147,897	2,683,766
Penicillin salts	134,183	1,420,647	948,409
Penicillin injections	46,290	923,171	799,334
Penicillin tablets, ointments	51,932	970,535	1,054,457
Other antibiotics	680,733	7,157,629	6,846,512
Alkaloids	111,579	1,392,717	1,493,751
Aspirin	108,597	1,213,494	1,342,786
Anæsthetics	112,013	1,084,522	1,464,006
Antihistaminics	50,139	682,434	675,645
Antipaludies	94,104	1,066,713	1,177,436
Danistanatas	50,450	544,493	647,697
Ointments and liniments	122,246	1,471,451	1,475,338
Harmanas	128,623	1,955,039	1,791,400
Insulin	18,593	434,776	356,701
Sulphonamides, prepared	62,966	921,851	1,219,120
Danis and attended to the con-	1,082,565		
77 1 10 10 11 11 1	817,277	13,736,763	14,188,492
G: ·	16,792	11,446,094	10,127,959
E. 1 1 1 1 1		448,976	483,762
A	442,836 25,425	4,789,029	3,724,611
edicate and the	,	411,746	454,173
Citric acid	41,383	822,399	707,364
Perfumery and toilet preparations:	112 602	1 (20 054	1.050.316
Dentifrices	112,692	1,630,954	1,850,216
Lipstick, face powder, etc	221,237	3,164,020	3,218,788
Toilet soaps	297,711	3,399,925	3,285,058
Synthetic detergents	555,493	7,910,349	7,533,525
RE-EXPORTS	£	£ .	£
Medicinal and pharmaceutical goods	94,656	398,304	401,373
Essential oils	80,184	983,038	1,159,597
IMPORTS	£	£	£
Vitamins	49,943	405,824	411,647
Antibiotics	20,024	809,131	1,035,081
Alkaloids	42,568	816,717	850,309
Proprietary medicines	96,624	934,878	873,268
Unclassified medicines	158,355	2,414,863	2,154,688
Borax	39,862	1,106,212	1,118,818
Iodine	36,906	566,605	632,825
Menthol	32,024	422,675	438,160
Essential oils:			
Bergamot	13,342	233,902	236,588
Citronella	20,749	334,190	435,029
Clove	18,525	105,534	115,979
Geranium	6,355	218,493	607,959
Lavender	13,981	95,365	168,398
Lemon	24,976	780,230	689,638
Orange	13,091	179,862	208,619
Peppermint	40,427	920,447	1,183,009
Unclassified	225,458	2,975,494	3,221,911
Ipecacuanha root	17,103	404,556	322,699
Opium, crude	83,923	776,234	1,232,874

A comparison between the 1962 and 1961 values of the various medicinal products for which statistics are available (see accompanying table) shows that they were about equally divided in numbers between the ups and the downs. Proprietary medicines were down by £400,000, and anæsthetics by £380,000. The overall increase was mostly due to increased penicillin exports, at £3·3 millions (up £ $\frac{1}{2}$ million), and to "unclassified medicines" (up £1·3 millions)

Australia, with purchases at £4.57 millions, remained the leading market for United Kingdom prepared medicines, the value being about £600,000 more than in 1961. Exports to the United States were valued at over £3 millions for the first time, making that country the second largest customer. Those two countries were followed by Nigeria (£2.59 millions); the Irish Republic (£2.48 millions) and New Zealand (£2.16 millions).

Exports to the European Economic Community improved from £4·4 millions in 1961 to £4·9 millions in 1962, West Germany buying about twice as much as in the previous year. Sales to the European Free Trade Association were only marginally higher at £3·09 millions.

Re-exports of medicines at £398,000 were slightly down on the previous year. So, too, were essential oils at £983,000.

On the import side, the value of prepared medicines was, at £5.38 millions, little changed from 1961, which in turn was £1.6 millions higher than in 1960. Menthol purchases were greater by volume than in 1961.

MEDICAL ABSTRACTS

CLINICAL TRIALS WITH COLISTIN

THE use of colistin,* an antibiotic obtained from culture filtrates of Bacillus colistinus, against Gram-negative infections is the subject of three clinical reports in the Lancet (1962. II. 737, 739, 740). In one trial, forty patients suffering from infection with Pseudomonas pyocyanea were treated successfully with 1.5-3 mega units of colistin, given intramuscularly every eight hours for 2-52 days (depending on the site and severity of infection). Another trial was carried out in ten patients with urinary infections caused by that organism. Although relapses occurred in some cases, five patients gave sterile urine for 3-6 months after treatment. At a children's hospital sixty-three strains of various Gram-negative organisms obtained from routine cultures were all sensitive to colistin. Of twenty-nine patients with infection, twenty-seven were cleared of the organism responsible in 2-9 days, and no toxic effects were encountered. *Colomycin (Pharmax, Ltd.).

A PHARMACIST'S ANTHOLOGY

THERE COMES A QUACK

From "The Borough" by George Crabbe

See! those square patent bottles from the shop, Now decoration to the cupboard's top; And there a favourite hoard you'll find within,

Companions meet! the julep and the gin.
Time too with cash is wasted; 'tis the fate
Of real helpers to be call'd too late;
This find the sick, when (time and patience gone)
Death with a tenfold terror hurries on.

Suppose the case surpasses human skill,
There comes a quack to flatter weakness stilt,
What greater evil can a flatterer do,
Than from himself to take the sufferer's view?
To turn from sacred thoughts his reasoning powers,
And rob a sinner of his dying hours?
Yet this they dare, and craving to the last,
In hope's strong bondage hold their victim fast.

Toxicity of New Drugs

PROFESSOR BROWNLEE GIVES SECOND TODD LECTURE

THE future historian may well trace he recent impetus in discovery of new rugs to the advent of chemotherapeuc remedies, and it may be that the nyth of the non-toxic drug arose at the ame source." That was the opinion of DR. G. BROWNLEE (professor of phar-nacology, King's College, London Uni-tersity) when he delivered the second Fodd lecture to the Glasgow and West of Scotland Branch of the Pharmaceuical Society on January 10. Yet, the ncrease in number of new drugs was real enough and the prescriber and his patient were perplexed by the discovery hat effective ones had been found to have hitherto unsuspected toxicities. It was hard for all concerned to judge where the responsibility lay and public concern with the problem might ulti-mately express itself in legislative control.

A first need was to examine each source of knowledge about the toxicity of drugs to animals and man to assess the significance and limitations of the information.

Four stages of drug development

It seemed possible to identify four distinct stages in the transition from a novel chemical compound to a drug acceptable for human use. The first stage ended with the demonstration of a worthwhile improvement in pharmacological activity compared with currently used drugs and included adequate toxicity tests in laboratory animals. The second stage began with a clinical pharmacological investigation and the third stage ended with the publication of a well-designed, comparative clinical trial. The fourth stage was the release for general clinical use.

Drugs that acted on the internal milieu would be tested, said Prof. Brownlee, for effects which in excess, represented its major toxicities. In contrast, the antiseptics, disinfectants and drugs used in the chemotherapy of infectious diseases were likely to be tested in a way which supplied little information on their potential acute toxicities.

Once it was accepted that all drugs were toxic, it became evident that the hazard of toxicity was not uniform among drugs. In a drug used once only, a high hazard was acceptable. Potent drugs used on several occasions at rare intervals, like morphine; substances given from time to time in courses, like antibiotics; drugs prescribed for months on end, like sedatives, and all drugs available without prescription formed categories with differing acceptable standards of toxicity.

One way of comparing the worth of drugs was to calculate the therapeutic index: the ratio of the lethal dose to the effective dose. After the average lethal dose had been found in mice, an assessment may be attempted to find the absorption, distribution and toxicity of the drug. Repeated sub-lethal doses shed light on eumulation or excretion; tests with, other animals indicated whether the drug was similarly toxic to all species. If all species did behave similarly, it might be inferred that man

would also react in that way; if there were differences, a more cautious approach was employed.

Drug Metabolism

Once the concentrations in blood, urine and faeces had been estimated after administration, information about the metabolism of the drug could be established, and additional knowledge gained about its possible duration of action. Brodie (1956, 1957) had pointed out that metabolism did not imply detoxification, but usually the drug was made more water-soluble, less fat-soluble and thus excretable. Sometimes metabolic transformation made the drug inactive and less toxic, as with barbiturate drugs, but sometimes more toxic, as with the insecticide parathion.

It had been seen that some drugs were given only once and some repeatedly. The duration of chronic toxicity tests thus varied from say, daily administration for ten days, to perhaps two years, half during the period of growth and half during adult life. One group of animals would receive a dose based on the maximum human dose in mg. per kg. body weight; a second group, a multiple of this, commonly tenfold; a third, larger group would receive a dose which produced symptoms but did not kill most of the animals. It was purposeless to make those tests without including controls. In addition, confirmatory tests were usually made in an avian species, and in domestic animals. Monkeys appeared to offer only the advantage of one more species.

Histopathological examination often indicated the precise locus of the biochemical lesion produced by the drug. Certainly no drug could be used on man that produced cirrhosis of the liver, irreparable damage to kidney tubules or deposited preferentially in the myocardium of even a single species. The chronic toxicity tests made with the largest dose which allowed survival should include a group which was examined at post-mortem at ten weeks. Controls were essential because of the high incidence of disease in normal laboratory animals.

For mutagenic and carcinogenic tests, mature animals had to be examined. Mitotic drugs had actions on the gonads, the intestinal epithelium, and the epithelium of ureter and bladder. The thalidomide disaster reminded us of the hazard of outside influences to the unborn child. At the present time the precise nature of the biochemical lesions produced by thalidomide were not known but it seemed likely that a mutagenic effect of a metabolic product was involved. Whether those substances which interrupted pregnancy in experimental animals did so by that or a different mechanism was similarly not known, and it would be naive to assume the potential intoxications of the foetus to be restricted to malformation or resorption, or that the early stages of pregnancy constituted the sole period at risk. Meantime, foetal tests had to be made on two or more species; it was also evident that those tests should be

extended to include a comparison of survival and behaviour with normal, untreated offspring.

Clinical investigation

"The predictive value of intoxications observed in laboratory animals for forecasting effects on man was limited," went on Professor Brownlee. Even at that stage in knowledge about the experimental pharmacology and toxicology of the new drug, the outcome of clinical investigations in man, both therapeutically or toxicologically, could not be assumed. A common experience was to discover an absence of therapeutic effect because the drug was differently metabolised in man. Novel toxicities were equally common: some of the earliest signs involving brain cells were headache, or changes in mental activity or behaviour, first picked up in man.

Keele (1958) had emphasised the advantages of making tests with doses which were as little as one-twentieth or even one-fiftieth of the estimated effective dose. In this way he observed muscular weakness during a pilot investigation of an analgesic drug.

The clinical trial was but the third stage in the experimental investigation of a new drug; the animal experiments and the clinical investigations the essential preliminaries. Usually, less was known about the potential toxic effects on the special senses than was desirable and a careful watch had to be kept on vestibular function, hearing, the eye, taste, and on behaviour generally. The precise knowledge about the metabolism of the drug in the laboratory animal should be compared with its behaviour in man. Any significant deviation should be treated with the gravest suspicion.

When new drugs were finally made available for general therapeutic use, the incidence of the predictable toxicities would become gradually apparent. In addition new toxicities would be uncovered for the first time. The nature of these reactions were those seen among drugs in current use, but rarely, and regrettably, a severe novel toxic effect was discovered, as with thalidomide. The sooner knowledge like that was published, the quicker could counter-measures be taken.

It followed that those who prescribed most drugs and had the means of observing their effects, would witness most reactions. Also, as the population receiving the drug increased, so the normal distribution and frequency of toxic effects become apparent. At the same time, differences in toxicity between the sexes and between age groups were observed.

Drug induced hypersensitivity was a toxic reaction occasionally seen with some drugs taken in repeated doses. It seemed that the drug, or one of its metabolites combined with a protein fraction of the tissue and that combination then functioned as an antigen. Antibodies were produced and fixed in target organs which in turn became the sites of antibody-antigen reaction as a

result of further ingestion of the drug. One result of that reaction was the destruction of cells containing histamine, and substances with similar pharmacological reactions. Two kinds of reactions were identified; an immediate anaphylactic reaction, in which the active substance reached the blood stream to produce generalised effects, and a delayed anaphylactic reaction in which the toxic effect was confined mainly within the target organ. The

immediate reaction was characterised by headache, metallic taste in the mouth, fall in blood pressure, bronchospasm and urticaria and had been reported with drugs like aspirin, penicillin and streptomycin.

The delayed reaction might not be seen for five to fifteen days. Skin reactions were common and fever was sometimes seen. More dangerous were effects on the bone marrow and the agranulocytosis or aplastic anaemias

which might follow. Liver damage was seen and some authorities included kidney and heart in the organs affected. The delayed pattern was seen with barbiturates, sulphonamides, thiouracil, phenylbutazone, the phenothiazine drugs and chlorpromazine, for example. A much commoner, but related, sensitisation might arise from direct drug contact with the skin sometimes called dermatitis medicamentosa. It was a useful warning. Unfortunately, no animal test was known which detected drug hypersensitivity, but the number of drugs involved was small and the incidence low.

A further example of unpredictable toxicity, revealed only when the drug had been used by man, was provided by the toxic actions of drugs used together. Well known examples were ethyl alcohol taken in association with the antihistamine drugs or with the

barbiturates.

An increasing number of qualitatively abnormal drug reactions were known to be inherited and ways had been found for identifying the abnormal reaction in the individual so that the drug might be avoided.

ANTIFUNGAL AND ANTIDIABETIC DRUGS

Two lectures at Chelsea

AN address on "Antifungal Agents" by Mr. J. T. Marsh (Glaxo Laboratories, Ltd.) opened a course entitled "Some Recent Advances in Therapeutics' Chelsea College of Science and Technology on January 15. The mycoses, said Mr. Marsh, could be classified as deep, in which the fungus invaded living tissues, or superficial, caused by dermatophytes which normally attacked only the keratinised tissues, i.e., skin, hair and horny layers of the skin. In the treatment of deep mycoses, amphotericin B, an antibiotic given intravenously, was of value. Its use was limited by such side effects as fever, nausea, headache and, less commonly, renal toxicity, but those were usually mild and transient in therapeutic dosage and use was justified in serious infections. The drug had been reported superior to other compounds in pulmonary and blood-borne moniliasis and in coccidioidomycosis. For the superficial mycoses, there were active, topical antifungal agents, but their very number indicated that none was particularly effective, the natural barrier of keratinised tissue blocking penetration.

Griseofulvin

Some acute conditions were associated with inflammation which disrupted that layer, enabling a local application to be effective. Griseofulvin, another antibiotic, but given orally, became incorporated into the tissues des-tined to replace the shed keratinised layer, thus preventing their infection by the fungi. However, it was only fungistatic and re-infection was possible when treatment stopped. Clinical response to the drug included relief of pain and irritation, usually within fortyeight hours, followed by subsidence of inflammation. A mycological cure was more difficult to achieve. Reduction of particle size had enabled the dosage established as producing a reliable response in most cases to be halved, due to better absorption. Side effects, low in incidence, included headache and an ability to increase the effect of alcohol. Its use was limited by reinfection at home even after complete removal of the fungus, and in persons subject to fungal attack prophylaxis might be indicated, a dose of 250 mgm. per week often sufficing. In "athletes fungal presence could be seconfoot." dary to warm, moist conditions; bacteria might also be the infecting organisms, thus supporting the formula-tion of local applications containing antibacterial and antifungal agents together with a corticosteroid.

A review of advances in antidiabetic drugs was given in the second lecture of the course by Dr. A. I. MACPHAIL (Harvey pharmaceutical department, Pfizer, Ltd.), on January 22. Dr. Macphail outlined the symptoms, complications and physiology of diabetes and indicated that the disease could take two forms. Juvenile diabetes had an early onset and the patient was unable to produce insulin—he was insulin-dependent; maturity-onset diabetes oc-curred in middle or later life and the patient produced insufficient insulin to meet his metabolic requirements. Such a diabetic often became obese, but that might be controlled by diet, with or without an oral hypoglycæmic agent. The juvenile diabetic still required insulin, of which the zinc suspensions were the most recent; ultralente having a prolonged action similar to protamine zinc insulin; semilente a rapid, transient action similar to soluble insulin; and lente being intermediate, consisting of a mixture of the other two forms.

Following the observation in 1942 of a hypoglycæmic effect in a sulphonamide, the sulphonylureas were developed. Those required the presence of functional β -cells, producing insulin, in the pancreas and were therefore of value mainly in maturity-onset type diabetes. The first, carbutamide, had caused blood dyscrasias and liver damage and had been superseded by tolbutamide, chlorpropamide and acetohexamide which were well tolerated. It was thought that those drugs stimulated the production or release of insulin or inhibited the conversion of liver glycogen to glucose. They were contra-indicated in the young diabetic and stress conditions, e.g., pregnancy; side effects included intestinal disturbances, dizziness and an intolerance to alcohol. Chlorpropamide was not metabolised in the body and one daily dose could suffice, but tolbutamide was converted to the non-hypoglycæmic carboxytolbutamide and required two or three doses daily.

Another group of hypoglycæmic compounds was the diguanides: phenformin and metformin. Those were not dependent upon circulating insulin and could be used in combination with insulin injections, thus reducing the dosage of the latter. They might also be of value added to a sulphonylurea when control with that drug had been lost, as occurred in some patients. Side effects included anorexia, vomiting and diarrhæa, the therapeutic and side effect dose being close, but the diguanides did have a useful, though small, place in the treatment of diabetes.

Complexities of Treatment

A complex activity was initiated when the physician treated disease by any procedure. The acceptance and transfer of responsibility, the fact of the self-limiting nature of some diseases, and the recuperative power of the human organism were all involved. Should the procedure also include giving a potion, or even a pharmacologically active drug, a careful experimental design was needed to allocate the parts played by the physician, the patient, the disease, the giving of the potion (the placebo phenomenon), and the drug. It was evident, though not immediately so, that placebos might be toxic; it was also evident that a drug could be toxic by reason of a placebo-like reaction. Stated simply, the circumstances made the patient expect toxicity. It followed that the occasion of the administration of a new drug created circumstances in which toxic effects might be expected to be seen.

EXPANSION PLANS

BORAX (Holdings), Ltd., have entered into technical collaboration with the Indian firm Dharamsi Morarji Chemicals for the manufacture of boron products, such as borax and boric acid. The Indian company is investing Rs.60 lakhs in the project, the London Times correspondent in Bombay reports. A new company, Borax Morarji, is being formed, with a factory near Bombay, where production facilities are already available.

BRISTOL LABORATORIES, INC., New York, U.S.A., are now producing several products in the Federation of Rhodesia and Nyasaland, Initially the company is concentrating on products subject to a high import duty. The company's policy will be to use local materials wherever possible but the company's representative states no product will be released for sale until tests have been made by the laboratory control department in New York.

Protective Measures in Chemical Works

REDUCING RISKS OF POISONING, BURNS AND DERMATITIS

THE physiological hazards to which workers in chemical plants are specially exposed were discussed by the safety officer of May & Baker, Ltd., Dagenham (Mr. L. W. Bushnell) in an address given recently to the central metropolitical around to be defined. tral metropolitan group, London Industrial Committee. Mr. Bushnell divirial Committee. ded them into three categories: Poisoning and gassing; chemical burns; and dermatitis.. The actual swallowing of poisonous substances was, he said, one of the least of the worries of the industry. Poisonous dusts, vapours, and gases could be, and generally were, inhaled through the nose or the mouth. Substances such as aniline and benzene were absorbed through the skin. If poisons could be prevented from entering the body by ingestion, inhalation or absorption, there would be no cases of industrial poisoning to

worry about.
The axioms enunciated by Sir Thomas Legge (first medical inspector of factories) in the early part of the century were as true today as then:-

Unless and until the employer has done everything—and everything means a great deal-the workman can do next to nothing to protect himself, though he is naturally willing enough to do his

If you can bring an influence to bear external to the workman (that is one over which he can exercise no control) you will be successful, and if you cannot or do not you will never be wholly successful.

Practically all industrial poisoning is due to the inhalation of dust or fume. Stop that inhalation and you will stop the poisoning.

All workmen should be told something of the danger of the materials with which they come into contact, and not be left to find it out for themselves, sometimes at the cost of their

Plant Design

Before a toxic substance was used in any process, consideration should always be given to the possibility of substitution by a non-poisonous material. Where that was not possible, first consideration should be given to the design and layout of the plant and to the methods of plant operation. Attention to those points at the earliest (even the research) stage and through the design stage would reduce the necessity for providing and wearing protective clothing and appliances. Buildings in which dangerous gases or poisonous substances were to be manufactured or used should, whenever possible, be sited away from other operations so that a minimum number of persons would be involved in any mishap. Prevailing winds should be taken into consideration so that poisonous substances escaping accidentally were carried away from working Where dangerous fumes, gases areas. or dusts could not be kept sealed within the plant or pipework, local exhaust ventilation should be provided

to keep the concentration well below toxic limits. It should be provided at all charging, discharging and sampling points on the plant, so that suction was provided when those points were opened. Such fans should never be relied upon, however, to keep a building free from dangerous fume, gas or dust. Charging, discharging and sampling points should be sited so as to eliminate the risk of dangerous materials coming into contact with plant operators.

Even when everything possible was done to make the buildings and the plant as safe as possible, the question of safe operation remained. The supervisory staff must ensure that the workers concerned were properly trained, understood their instructions and always obeyed them. Operating instructions ought to cover:-

Action necessary for normal operation of process.

Action to be taken during abnormal conditions.

Wearing of normal protective equipment necessary for the operation.

Location and correct method of using emergency protective equipment.

Advice on toxic properties of materials used in process.

First-aid measures.

Training of Personnel

All personnel must be adequately trained in correct and safe manipulation of plant and equipment and in handling any dangerous material. In the training scheme for chemical process workers at Dagenham the men were shown exactly what happened when chemicals were mishandled. They were then instructed to ask themselves before handling any new substance. "Is it poisonous, corrosive, inflammable, explosive, dermatitic, radioactive?" If the answer "No" could not be given to all six questions, the worker should contact his foreman before starting work. The issue of protective clothing and appliances should always be the ultimate consideration — after effort had been made to eliminate or minimise the danger by correct plant

design and safe plant operation.

When the risk of inhalation of a dust was low, masks of the filter type might be used. Where there was no deficiency of oxygen, and the concentration of gas, fume or vapour was low, canister-type respirators might be used. They should not, however, be used in high concentrations, in confined spaces, or for long periods of time. Self-contained compressed air (or oxygen) or short-distance fresh-air masks should be worn in high con-centrations and in confined spaces. Respirators for use in emergencies should be sited reasonably near the place at which an escape of dangerous gas or fume was possible, and used only to enable quick emergency adjustments of plant or to protect workers while making their way out of the danger area.

All persons exposed to certain

poisonous materials (benzene, aniline, lead, manganese, nitro and amido homologues of benzene, mercury) should be medically examined at regular intervals and adequate records kept of all such examinations. Workers should be removed from all possible contact with a dangerous substance so soon as they showed any signs of poisoning. Blood and urine examinations could reveal absorption before toxic levels were reached.

Chemical Burns

The most common hazard with corrosive materials was the destruction of the skin, of the surface mucous membranes of the body and of their underlying tissues by direct contact. Internal injuries were generally caused by accidental swallowing, and could be avoided by keeping all hazardous materials in adequately labelled containers; and by ensuring cleanliness and prohibiting smoking or eating where there was any possibility of contamination. A suitable antidate should tamination. A suitable antidote should be kept available and all plant person-nel should be made aware of its purpose and location and given instruc-tions for its use. Where there was risk of splashes on the skin or in the eyes, preventive action should include correct plant design, correct operational methods, and provision and use of protective appliances and clothing. Suitable goggles should be issued and facilities provided for prompt irrigation of the eye.

Chemical agents that had been found to produce occupational dermatitis comprised primary irritants or non-sensitisers, secondary irritants or sensitisers. From dermatitis due to primary irritants one could make a complete recovery and would not necessarily have a recurrence on subsequent exposures. The really troublesome chemicals were the secondary irritants which created a sensitisation that later caused the body to react vigorously to any contact. The group included antibiotics, antimalarials (mepacrine, chloroquine), sulphonamides and nitroso compounds. The employer's responsibility was to design the plant so that as little dust, liquid or vapour as was compatible with efficient production came into contact with the employee's skin. That might entail enclosing the job, providing exhaust ventilation, or special guards. It might be necessary to provide the employee with protective clothing, but such protection was not without its dangers. Proper care of protective clothing must therefore be taught to the employees. For particularly dirty jobs it might be necessary to provide special cleansing agents. Employees must develop and maintain high standards of personal cleanliness.

Barrier Creams

Barrier creams were intended only as a secondary defence. The position under common law had always been in favour of those preparations. No in favour of those preparations. No barrier cream gave overall protection.

GUIDE TO NEW MEDICAMENTS

Information about proprietary products supplied principally on prescription. Reprints on perforated gummed paper for affixing to index cards are obtainable from the Editor. Notes on the products are given on p. 130.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

CAPRIN tablets

Manufacturer: West Pharmaceutical Co., Ltd., Church Road, Hove, 3, Sussex.

DESCRIPTION: Pink tablets embossed "Caprin," each containing 5 gr. of acetylsalicylic acid. Analgesic.

INDICATIONS: As for aspirin.

CONTRAINDICATIONS: Aspirin allergy.

Dosage: As for aspirin.

Notes: By tableting under heavy pressure and the application of a long-chain polymer prior to compression, Caprin does not disintegrate in the stomach but breaks down rapidly in the duodenum. Gastric irritation and occult bleeding are so eliminated.

How Supplied: In bottle of I00. First Issued: November 1962.

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DYTAC capsules

Manufacturer: Smith, Kline & French Laboratories, Ltd., Mundells, Welwyn Garden City, Herts.

DESCRIPTION: Opaque maroon capsules each containing 50 mgm. of triamterene. Diuretic.

INDICATIONS: Œdema in congestive heart failure, cirrhosis of the liver and the nephrotic syndrome, idiopathic and druginduced œdema.

Dosage: Adults, 150 to 250 mgm. daily in divided doses.

SIDE EFFECTS: Raised blood urea, electrolyte disturbances, gastrointestinal disturbances.

STABILITY: Stable at room temperature for at least two years.

HOW SUPPLIED: In packs of thirty and 250.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: November 1962.

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ORANABOL tablets

Manufacturer: May & Baker, Ltd., Dagenham, Essex.

Description: White tablets, inscribed "Oranabol" on one face and scored on the other. Each contains 5 mgm. of oxymesterone. Anabolic agent.

INDICATIONS: Debility, certain endocrine disturbances, acute and chronic renal failure, corticosteroid catabolism, cancer of the breast, convalescence after surgery or severe illness, depression.

CONTRAINDICATIONS: Carcinoma of the prostate; pregnancy.

Dosage: Adults, 10 to 40 mgm. daily (usual dose 20 mgm. daily, in courses of ten to fifteen days). Children, 0-I-0-2 mgm. per kilo body weight daily.

PRECAUTIONS: Possibility of cholestatic liver dysfunction should be kept in mind.

How Supplied: In pack of fifty.

SUPPLY RESTRICTIONS: P.I, S.4B. FIRST ISSUED: November 1962.

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QUATRASOL lotion

Manufacturer: S. G. Duncan (Pharmaceuticals), Ltd., 124 Union Street, Aberdeen.

Description: Lotion containing 15 per cent. cetyltrimethylammonium-I0-undecanoic acid complex. Bactericidal antiseborrhæic.

INDICATIONS: Acne, acneform eruptions.

METHOD OF USE: Apply to lesions four times a day.

PRECAUTIONS: Avoid contact with eyes. How Supplied: In bottle of 28 mils. First Issued: December 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

ADCORTYL-A in Orabase

Manufacturer: E. R. Squibb & Sons, Ltd., Edwards Lane, Speke, Liverpool, 24.

DESCRIPTION: Emollient dental paste containing 0·I per cent. of triamcinolone acetonide.

INDICATIONS: Aphthous ulcers and other inflammatory conditions of the oral mucosa,

METHOD OF USE: Lesions should be covered with a thin coating two or three times a day, after meals.

Notes: The paste base is designed to adhere to the oral mucosa for prolonged periods.

How Supplied: In tube of 5 gm.

SUPPLY RESTRICTIONS: P.I. Therapeutic Substances Act.

FIRST ISSUED: November 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

FARINGETS lozenges

Manufacturer: Bayer Products, Co., Winthrop House, Surbiton-on-Thames, Surrey.

DESCRIPTION: Pale orange bevelled-edge lozenges containing 4 mgm. of myristyl benzalkonium iodine chloride.

INDICATIONS: Minor throat infections. Supplement to systemic treatment of pharyngitis, tonsillitis, thrush and other throat infections.

CONTRAINDICATIONS: Known sensitivity to iodine.

Dosage: One or two lozenges should be sucked slowly every four hours. Not more than six to be taken in twenty-four hours.

PRECAUTIONS: Prolonged use during pregnancy is probably inadvisable. See manufacturer's literature.

How Supplied: In tube of twenty. First Issued: November 1962.

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SYNALAR-N lotion

MANUFACTURER: Imperial Chemical Industries, Ltd., Pharmaceuticals Division, Wilmslow, Ches.

DESCRIPTION: Lotion containing 0.025 per cent. of fluocinolone acetonide and 0.5 per cent. of neomycin sulphate.

INDICATIONS: Local inflammatory, pruritic and allergic conditions of the skin and mucosa, when accompanied by infection.

METHOD OF USE: Topical application.

Notes: Store in a cool place.

How Supplied: In polythene squeeze bottle of 20 mils.

SUPPLY RESTRICTIONS: Therapeutic Substances Act (Part II).

FIRST ISSUED: December 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

TERRA-BRON liquid

Manufacturer: Pfizer, Ltd., Sandwich, Kent.

Description: Pleasantly flavoured liquid containing in each teaspoonful (5 mils), 250 mgm. of oxytetracycline as the calcium salt; 0.03 mil of liquid extract of ipecacuanha B.P. and 7.5 mgm. of cphedrinc hydrochloride.

INDICATIONS: Bronchitis, where an expectorant, bronchodilator and broad spectrum antibiotic therapy is needed.

Dosage: One teaspoonful four times a day, preferably at six hour intervals.

PRECAUTIONS: Ephcdrinc should be used with caution in ischæmic heart disease and cardiac decompensation, hyperthyroidism and hypertension.

SIDE-EFFECTS: Oxytetracycline may cause nausea, vomiting or looseness of stools. Glossitis, dermatitis and proctitis may occur.

How Supplied: In bottle of 120 mils.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: December 1962.

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MINOSOL VITRUM 10 per cent.

IANUFACTURER: Vitrum, Ltd., Stockholm, Sweden.

DISTRIBUTOR: Paines & Byrne, Ltd., Greenford, Middlesex.

DESCRIPTION: Solution containing 10 per cent. of dialysed enzymatic casein hydrolysate in water for injection together with approximately 150 mEq Na per litre of electrolytes.

NDICATIONS: Pre- and post-operative protein deficiency; malnutrition due to obstruction or inflammation of the alimentary tract, diarrhoea or vomiting; burns; anorexia.

CONTRAINDICATIONS: Acidosis.

VIETHOD OF USE: Intravenously by slow drip infusion, 500 to 1,000 mils daily. The drip rate should be adjusted to complete infusion of 500 mils in not less than one-and-a-half to two hours. When administered concurrently with Intralipid Vitrum (as a caloric source) the drip rate should be adjusted to complete the infusion within four to five hours.

PRECAUTIONS: The solution is hypertonic, and infusion into small veins should be avoided. Only freshly opened bottles should be used and turbid solutions discarded.

STORAGE: Store between 4 to 25° C., protected from light.

How Supplied: In bottle of 500 mils.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: October 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

CYCLOSPASMOL 200 mgm. tablets

Manufacturer: Camden Chemical Co., Ltd., 61 Grays Inn Road, London, W.C.1.

DESCRIPTION: Pale pink tablets each containing 200 mgm. of cyclandelate.

INDICATIONS: Intermittent claudication, night cramps, "restless legs," cerebral ischæmia, cold hands and feet.

CONTRAINDICATIONS: Patients with previous gastro-intestinal disorders are more likely to experience side effects.

Dosage: One tablet four times a day before meals and at bedtime. The dosage may be increased at the discretion of the physician.

SIDE EFFECTS: Mild flushing, tachycardia or feeling of weakness may occur rarely with high doses.

How Supplied: In bottles of fifty and 250.

SUPPLY RESTRICTIONS: Recommended on prescription only.

First Issued: January 1963.

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EPODYL injection

MANUFACTURER: Imperial Chemical Industries, Ltd., Pharmaceuticals Division, Wilmslow, Ches.

DESCRIPTION: Triethyleneglycol diglycidyl ether—a clear, colourless slightly viscous liquid of specific gravity 1:13. Cytotoxic agent.

INDICATIONS: Malignant disease, especially valuable for regional arterial infusion.

Dosage: 100 to 250 mgm, per kilo bodyweight by intravenous, intra-arterial or intracavitary injection.

NOTES: Should be diluted with water before use. Preferably administered with patient lying down.

SIDE EFFECTS: Transient hypotension immediately after injection. Nausea and vomiting may occur within first twenty-four hours. Hæmatological depression affecting primarily polymorphs is maximumal towards end of second week, and requires antibiotic cover.

STORAGE: Ampoules should be stored in cool place. Injection solutions should be freshly prepared.

PRECAUTIONS: If spilled on skin, wash off immediately with water.

How Supplied: In ampoule of 5 mils.

SUPPLY RESTRICTIONS: Available to hospitals only.

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THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

ALUPENT metered aerosol

MANUFACTURER: Boehringer Ingelheim, Ltd., Isleworth, Middlesex. DISTRIBUTOR: Pfizer, Ltd., Sandwich, Kent.

Description: Aerosol containing about 300 measured inhalations. Each delivery of dry-particle spray contains 750 microgms. of orciprenaline, Bronchodilator.

INDICATIONS: Bronchospasm, in particular chronic bronchitis and asthma.

CONTRAINDICATIONS: Thyrotoxicosis.

METHOD OF USE: Two or more inhalations as directed.

SIDE EFFECTS: Sympathomimetic side-effects such as palpitations and headache reported occasionally.

Precautions: Aerosol should not be burned when empty, nor forced open.

How Supplied: Complete with 15-mil vial and plastic mouthpiece. Refill, 15-mil vial.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: December 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

DEMOCENE

Manufacturer: S. G. Duncan (Pharmaceuticals), Ltd., 124 Union Street, Aberdeen.

Description: Bactericidal and fungicide solution containing 15 per cent. of cetyltrimethylammonium-10-undecanoic acid and 5 per cent. of undecylenic acid.

INDICATIONS: Athletes foot, bacterial-fungal skin infections.

METHOD OF USE: Apply to lesions morning and night.

How Supplied: In bottle of 28 mils.

FIRST ISSUED: December 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

PRENOMISER PLUS

MANUFACTURER: Benger Laboratories, Ltd., Holmes Chapel, Ches.

DESCRIPTION: Aerosol containing isoprenaline sulphate 0.1 per cent. w/w and atropine methonitrate 0.04 per cent. w/w in an inert propellent. Consistently delivers 200 accurate doses in micro-aerosol form. Bronchodilator.

INDICATIONS: Bronchospasm in bronchial asthma, chronic bronchitis and other respiratory disorders.

METHOD OF Use: One inhalation when required. Usually provides relief from bronchospasm for up to six hours. Not more than six inhalations should be administered in twenty-four hours.

How Supplied: In 20-mil aerosol container with plastic mouthpiece and dustcap.

SUPPLY RESTRICTIONS: P.I.

FIRST ISSUED: December 1962.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, February 2, 1963

TRIMUNE vaccine

Manufacturer: Evans Medical, Ltd., Speke, Liverpool, 24.

DESCRIPTION: Diphtheria, pertussis and tetanus vaccine. Each 0.5 mil contains diphtheria formol toxoid Lf25, tetanus toxoid Lf10 and *Bordetella pertussis*, 20,000 million killed organisms.

INDICATIONS: Active immunisation against diphtheria, tetanus and pertussis in children.

Dosage: Three intramuscular or subcutaneous injections of 0.5 mil given between two to six months of age, at intervals of four to six weeks. A booster dose of 0.5 mil should be administered during the second year.

Notes: Local reaction, if any, usually subsides without treatment. Allergic manifestations are rarc.

STORAGE: Should be protected from light and stored at between 4° C, and 15° C., but never frozen.

How Supplied: In box of three 0.5-mil ampoules and vial of 5 mils.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: December 1962.

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

London, January 30: Demand for Crude Drugs showed little upturn during the week and prices were mostly held at previous levels.

PEPPERS were slightly firmer at origin but spot supplies were unaltered. Madras Turmeric for immediate delivery was short and sellers were asking 10s. per cwt. more than last week at 185s. In Aromatic seeds, Moroccan Coriander was much dearer; spot was quoted at 65s. per cwt., duty paid, against 52s. 6d. and at 57s., c.i.f., against 45s., c.i.f. The rise was attributed to floods in Morocco and to heavy American buying.

In ESSENTIAL OILS the price of Lemongrass eased by 1s. 3d. per 1b. in both positions. Peppermint (arvensis) continued a weak market, Chinese and Brazilian were both lower. East Indian Sandalwood was marked down following the example set by Mysore. Formosan CITRONELLA was ninepence per 1b. dearer at 13s. in bond. The effects of a hot summer last year in Italy on the Bergamot oil yield is just being realised. Contrary to expectations the amount of oil available is well down and an advanced price by the consortium has caught the market

Pharmaceutical Chemicals

unawares. Spot rates have been adjusted upwards to 84s. from 75s, per lb.

Ammonium bicarbonate.—B.P. powder £50 5s. per ton; Carbonate, £81 10s. for lump and £85 10s. for powder.

Ammonium chloride. — One-cwt. lots B.P. powder, 105s. per cwt.; technical, 55s.

Ammonium sulphate. — One-cwt. lots 10d. per lb. for B.P.C. grade.

BORAX.—B.P. grade, 1 ton and upwards: Granular, £54 10s.; crystals, £58; powder, £59; extra fine powder, £60 per ton, all in hessian sacks. Less £1 for paper bags. Commercial from £44 10s. to £51 per ton, as to type and packing. Dehydrated borax is £60 per ton in hessian bags or £59 in paper bags; carriage paid in Great Britain. Surcharges for small quantities: Less than 1 ton but not less than 5 cwt., 1s. per cwt.; 3 cwt., 2s.; 1 cwt., 3s.

BORIC ACID.—B.P. grade in 1 ton and upwards (per ton): Granular, £88; crystals, £97; powder, £94 10s.; extra-fine powder, £96 10s. per ton in lined hessian bags, carriage paid in Great Britain. Less £1 per ton if supplied in paper bags. Technical from £74 to £84 10s. per ton according to type and packing.

CHALK.—Prepared powder B.P., £22 per ton for minimum 1-ton ex works.

CHLOROFORM.—1-cwt, lots in winchesters, 3s. $4\frac{1}{2}$ d. per 1b.; 56-lb., 3s. 6d. In drums, 3s. $2\frac{1}{2}$ d. and 3s. 4d. per lb. respectively.

Digoxin.—100-gm. lots, 68s. per gm.

EPHEDRINE.—ALKALOID nominally 6s. 6d. per oz. sulphate, 4s. and hydrochloride, 3s. 3d. per oz.

FORMALDEHYDE.—B.P. solution, 5 drum lots, 755s. per ton in free drums, delivered.

Gallic acid.—B.P., 10s. 6d. per lb. for 2-cwt. lots. Technical grade 9s. 9d.

GLYCEROPHOSPHATES.—Per lb. in 1 cwt. lots, 110s. per gm.; 100-gm., 105s. per gm. CALCIUM, soluble, B.P.C., 12s.; IRON, B.P.C., scale, 15s. 9d. and powder, 14s. 9d.: MAGNESIUM, soluble, B.P.C., 14s. 3d.; MANGANESE, B.P.C., 27s.; POTASSIUM, 50 per cent.. B.P.C., 3s. 9d. and 75 per cent., 2s. 7d.; 75 per cent., 4s. 6d.; 100 per cent., 8s.

HYDROCYANIC ACID.—Dilute B.P.C., from 3s. 2d. to 4s. per litre, as to quantity; Scheeles from 3s. 10d. to 4s. 9d.

Hydroquinone. — One-cwt. lots, 10s.; 1-ton, 8s. 6d. per lb.

Hyoscine hydrobromide.—Per oz. 102s. and per kilo, 3,419s.

Lead acetate.—B.P. crystals, 225s. per cwt.

Magnesium carbonate. — Per cwt. Light, 129s. or 121s. for 1-ton lots; HEAVY, 175s. for 1-cwt. lots; from 130s. to 135s. for 1-ton lots.

Magnesium chloride.—One-cwt. kegs, 1s. 11d. per lb.

Magnesium hydroxide.—B.P.C., 1-cwt. lots, 3s. 7d. per lb.; 1-ton, 3s. 2d. per lb.

Magnesium oxide, B.P.—Light, 1-cwt. lots, 3s. 2d. per lb.; heavy, 5s. 10d. per lb.

Magnesium peroxide.—B.P.C. (15 per cent.), 3s. 11d. per lb. (1-cwt.).

Magnesium Phosphates: Dihydrogen, 1-cwt. lots, 4s. per lb.; Tribasic, 4s. 5d. lb.

MAGNESIUM SULPHATE. — B.P. in minimum 1-ton lots from £20 to £21 per ton according to crystal and manufacturer. Exsiccated, £56 per ton.

Magnesium trisilicate.—(Per lb.). In 28-lb. packages:—28-lb., 4s. $9\frac{1}{2}d$.; 1-cwt. 3s. 10d.; 5-cwt., 3s. 7d.; 1-ton, 3s. 1d.

METHYL SALICYLATE. — Five-ton lots, 3s. 2d. per lb.; 1-ton, 3s. 2½d.; 10-cwt., 3s. 3d.; 5-cwt., 3s. 6d.; 1-cwt., 3s. 8d.

OLEIC ACID.—B.P. grade, £171 10s. per ton. Small 10ts, 21s. 5d. per gall.

Oxalic acid.—Manufacturers' rates for 1-ton lots, £128 per ton.

PARACETAMOL.—Ten cwt. to 1-ton lots, 10s. 6d. per 1b.

PARAFFINS.—Prices to wholesale distributors per gall.—Liquid: HEAVY, B.P., in drums, 8s, 8½d. to 8s. 9½d. as to quantity; over 500 gall. in bulk, 8s. 7½d. Light, B.P., drums, 7s. 1½d. to 7s. 2½d.; bulk, 7s. 0½d. Technical white: LIGHT, 6s. 6d. to 6s. 7d. and 6s. 3d. in bulk; MEDIUM, 7s. 7d. to 7s. 8d., bulk, 7s. 4½d. Drums charged and returnable. Soft: Best grades White, medium consistency, £116 15s. per ton and soft consistency, £116 15s. per ton and soft consistency, £118 17s. 6d. YELLOW, £94 10s. Other grades (all B.P.) at £95, £100 10s., £106 per ton for white and at £74 17s. 6d. for yellow. All in non-returnable drums delivered.

PHENOL.—Ice crystals in bulk, 1s. 4d. per lb. Liquid, B.P., 1s. 9d. per lb. in 56-lb. returnable tins.

PHENOLPHTHALEIN,—One-cwt. 9s. per lb. PHENYTOIN SODIUM.—More than 25-kilo lots are about 43s. per kilo.

PICROTOXIN.—Per oz. 45s. 6d. (4-oz.).

QUINIDINE.—For 15 kilos or 500 oz. or

Home	Trade	Per	kilo	Per 1	100	oz.
QUINIDINE SULPHATE ALKALOID	cryst.	 s. 199 260	d. 1 8	s. 564 739		

Prices include tins and cases and free delivery U.K.

Quinine. — 1,000-oz. lots:—Alakloid 3s. $11\frac{1}{2}$ d. per oz.; sulphate, B.P., 1932, 2s. $5\frac{1}{4}$ d.; sulphate, B.P., 1958, 2s. $8\frac{3}{4}$ d.; bisulphite, 2s. $6\frac{3}{4}$ d.; bihydrochloride, 3s. $7\frac{3}{4}$ d.; hydrochloride, 3s. $3\frac{3}{4}$ d.; ethyl carbonate, 4s. 5d.; hydrobromide, 3s. $2\frac{1}{4}$ d. salicylate, 4s. $1\frac{3}{4}$ d.

ROCHELLE SALT.—Powder or granulated, 5-cwt. lots or over in kegs, 220s. per cwt.; 1-cwt. 222s. 6d. (bags less 5s.).

SAL PRUNELLA.—Balls, 3s. 10d. per lb. in 1-cwt. lots.

SODIUM ACETATE. — B.P.C., one cwt., 1s. 9d. per lb.

SODIUM BENZOATE. — One-ton lots, 2s. $7\frac{1}{2}$ d. per lb.; 1-cwt., 2s. $9\frac{1}{2}$ d.

Sodium bicarbonate.—B.P., 1-cwt. bags, £18 per ton for 8-ton lots.

SODIUM BROMATE. — One-cwt., 9s. 9d. per lb.

Sodium Carbonate.—B.P.C. exsiccated, 70s. per cwt.; 5-cwt. 65s. per cwt.

Sodium chloride. — B.P., 37s. 4d. per cwt. in sacks.

SODIUM FLUORIDE. — B.P.C. 1934, one-cwt. kegs, 3s. 6d. per lb.

SODIUM HYDROXIDE. — FLAKE, one-cwt. lots, 7d. per lb.; STICKS, 4s. 5d. lb. in 14-lb. tin.

SODIUM METABISULPHITE. — Granular, 1-cwt. lots, ninepence per lb.

Sodium nitrite.—B.P.C. One-cwt, kegs, 2s. 7d. per lb.

SODIUM PERBORATE.—(Per ton). TETRA-HYDRATE (minimum 10 per cent. available oxygen) £142 5s. in 1-cwt. kegs; £134 15s. in 1-cwt. bags; PERBORATE MONOHYDRATE (minimum 15 per cent. available oxygen) is £309 15s.

SODIUM PERCARBONATE. — (Per ton) £173 15s. in kegs (bags £7 10s. per ton lower) for minimum $12\frac{1}{2}$ per cent. available oxygen.

SODIUM PHOSPHATE. — B.P. (1-cwt.), 2s. 3d. per lb.; ACID, B.P.C., 2s. 9d.

SODIUM SALICYLATE. — One-ton lots in bulk, 3s. 9d. per lb.; 5-cwt., 3s. 10d.; 1-cwt., 4s.

SODIUM SULPHATE.—B.P. from £15 to £29 per ton as to crystal. B.P. exsicated about £66 per ton.

SODIUM SULPHIDE.—In 1-ton lots: Solid, £39 2s. 6d.; broken, £40 2s. 6d.; flake, £41 12s. 6d.; crystals, £30.

Sodium thiosulphate. — Photographic crystals in paper-lined bags, £38 per ton. Sulphuric acid.—Ninepence to 1s. 2½d. per lb. in winchesters.

TANNIC ACID.—The B.P. levis, ex etner, 9s. per lb.; B.P. powder, 8s. 6d. (5-cwt. lots).

TEREBENE. — B.P.C., one-carboy lots, 4s. 5d. per lb.

TERPIN HYDRATE.—Less than 12½ kilos, 11s. 6d. per kilo.

Theophylline.—12½-kilo lots: Alkaloid anhydrous, 33s. per kilo and B.P., 32s. 9d.; Aminophylline, 30s. per kilo, 12½ kilos, 31s. per kilo.

Theobromine. — Alkaloid in less than 50-kilos, 44s. per kilo;—Calcium salicylate (12½-kilos), 43s. 6d. per kilo; and—sodium salicylate, 40s. 6d.

THIOGLYCOLLIC ACID. — Basic rates per lb., 97–98 per cent., 26-lb. packs, 15s.; 75 per cent., 11s. 6d. Ammonium thioglycollate, 40 per cent. ph 9'3 (24-lb. pack), 6s. 8d.; monoethanolamine thioglycollate, ph 9'9, 4 per cent., 9s. 10d. All carriage paid and subject to purchase tax.

THIOUREA.—Technical grade, 1-cwt. lots, 3s. $1\frac{1}{2}$ d. per lb.; 10 cwt., 2s. $9\frac{1}{2}$ d. per lb.

d-Tubocurarine chloride. — 100-gm. lots, 60s, per gm.

UREA.—Pharmaceutical grade, £59 15s. per ton in 1-cwt. bags non-returnable; technical quality, £41 5s. per ton (4-ton lots).





The dietary problems of elderly people trying to make do on 'tea and toast' meals can easily be resolved with Complan. It is complete in every nutritional detail, simple to prepare, needs no chewing and is inexpensive. Coffee, cocoa or other flavouring may be added if desired.

COMPLAN complete planned food to drink

1 lb. cartons—Retail Price 4/2 each Trade Price 40/- per dozen COMPLAN No. 1 Parcel 24 x 1 lb. cartons £3.15.0.

The name Complan is a Glaxo trade mark

GLAXO

GLAXO LABORATORIES LIMITED



Crude Drugs

ACONITE. — Spot: Spanish napellus, 9d. per lb.

AGAR.—Kobé No. 1, 12s. 3d. per lb. in ond; shipment, 11s. 9d., c.i.f.

ANISE. — Chinese STAR, 185s. per cwt., ot, duty paid; shipment, 155s., c.i.f.

ARROWROOT. — St. Vincent, 1s. 6d. per ., spot.

BELLADONNA. — LEAVES, 0.6 per cent. 3d. per lb., duty paid. Root, testing ver 0.5 per cent. 1s. 10d. per lb.

BENZOIN.—Sumatra block, spot £18 10s. £35 per cwt. as to quality.

CALAMUS.—Root, 100s. per cwt., spot, s. 6d., c.i.f.

CALUMBA ROOT.—Spot, 85s. per cwt. CAMPHOR. — B.P. powder nominally s. 9d. per lb. in bond. No c.i.f. offers.

CAPSICUMS. — East African on stalk, 50s. per cwt.; Ethiopian, 145s.

CARDAMOMS.—Aleppy greens 7s. 9d. per spot; shipment, 7s., c.i.f. Seeds, spot, /hole, 16s. 6d.; splits, 10s. 3d.

CASSIA. — Fistula, 105s. per cwt.; gnea (whole), for prompt shipment, 50s., c.i.f.; spot, 375s., duty paid; broken 25s., c.i.f.

CHAMOMILE. — Roman-type, 7s. per lb.; elgian new crop offers vary between 10s. nd 14s. per lb. for forward delivery. Iatricaria, 7s. 6d. on the spot.

CHERRY BARK. — Thin natural, 1s. 9d. er lb.; shipment, 1s. 8d., c.i.f.

CINNAMON QUILLS.—Shipment (c.i.f., per b.) 4 O's, 6s. $3\frac{1}{4}$ d.; single O, 5s. $9\frac{1}{4}$ d.; conds, 4s. $7\frac{1}{4}$ d.; quillings, 3s. $9\frac{1}{4}$ d.; atherings, 1s. $11\frac{1}{4}$ d.

CLOVES. — Zanzibar spot, 2s. $10\frac{1}{4}$ d. per standard grade; shipment, 2s. $7\frac{1}{2}$ d., i.f.

COCHINEAL.—Canary Isles black-brilliant ominal; silver-grey, 14s. 6d. per lb., c.i.f. eruvian, silver-grey, 10s., c.i.f.

COLOCYNTH PULP. — Spot and shipment ominal.

GINGER. — (Per cwt.). African on the pot, 435s.; shipment, not offered. amaican No. 3 spot, nominal; new-erop or February–March shipment, 530s. Cochin, spot, 180s.; February shipment, 65s., c.i.f.

GUM ACACIA. — Kordofan-cleaned sorts, 52s. 6d. per cwt., spot; shipment, 138s., i.f.

PECACUANHA. — Spot Costa Rican, 85s. per lb. Shipment (c.i.f.): Colombian 65s. per lb.

JUNIPER BERRIES. — Hungarian, 95s. per wt.; German, 145s. spot.

Karaya. — No. 1 gum, spot nominal; No. 2, 280s. per cwt.

Kola nuts. — African $5\frac{1}{2}$ d. spot and $4\frac{1}{2}$ d., c.i.f. (per lb.).

LANOLIN. — ANHYDROUS B.P. is from 170s. to 190s. per cwt. in 1-ton lots delivered, free drums.

LEMON PEEL.—Spot, 2s. per lb.

LINSEED. — Whole, 72s. 6d. per cwt.; crushed, 102s. 6d.

LIQUORICE. — Natural root: Russian, 55s. per cwt.; Anatolian, 57s. 6d.; Persian, 52s. 6d.; Sicilian 1-kilo bundles, 1s. 6d. per lb. Block juice: Anatolian from 200s. per cwt.; Italian stick from 329s. to 470s. per cwt.

LOBELIA HERB.—American spot, 6s. 3d. per lb.

MALEFERN.—Root for shipment quoted at 75s. per cwt., c.i.f.

MENTHOL.—Chinese: spot, 46s. per lb. duty paid; February—March shipment, 40s., c.i.f. Brazilian 22s. to 23s. in bond; shipment, 21s. 3d. to 22s. 6d., c.i.f. Formosan, 30s. in bond; shipment, 27s. 6d., c.i.f.

Nutmegs. — West Indian 80's, 6s. 6d. per lb. spot; sound unassorted, 4s. 3d.; defectives, 3s. 4½d.

Nux vomica.—Cochin, 75s. per cwt. on the spot.

Papain,—No. 1 from 35s. to 45s. per 1b., spot as to quantity. For shipment: East African, 32s., c.i.f.

PEPPER.—White Sarawak spot, 2s. 10d. per lb.; shipment, 2s. 9d., c.i.f. Black Sarawak spot, 2s. 3\frac{1}{4}d.; shipment, 2s. 2d., c.i.f. Black Malabar, 305s. per cwt. spot; shipment, 245s., c.i.f.

PIMENTO.—Spot value 616s. per cwt.; shipment, 580s. with resellers at 560s., f.o.b.

Podophyllum. — *Emodi* for shipment, 250s. per cwt., c.i.f. and 260s., spot; *Peltatum*, 365s. per cwt., spot.

PYRETHRUM. — Extracts—partially dewaxed, 25 per cent. pyrethrins, 74s. 6d. to 65s. 6d. per lb.; decolorised dewaxed, 20 per cent., 66s. 6d. to 59s. 4d. per lb.

QUASSIA.—Spot, 57s. 6d. per cwt.

QUILLAIA. — Spot, 180s. per cwt. New crop for shipment, 125s., c.i.f.

RHUBARB. — Supplies of good pinky rounds cleared on the spot and no shipment offers.

SAFFRON. — Mancha superior, 160s. per lb. spot.

SARSAPARILLA. — Jamaican native red spot, 2s. 8d. per lb.; no shipment offers.

SEEDS.—(Per cwt.). ANISE. — Spanish, 275s., duty paid. CARAWAY.—Dutch, 155s., duty paid. CELERY.—Indian, 265s., spot; shipment current crop, 225s., c.i.f.; new crop, June–July, 180s., c.i.f. CORIANDER.—Moroccan dearer at 65s., duty paid; shipment, 57s., c.i.f., quoted. CUMIN.—Iranian, 170s., duty paid; shipment, 140s., c.i.f. DILL.—Indian, 85s., spot; shipment, 63s., c.i.f. FENNEL.—Indian, 115s., spot; shipment, 98s., c.i.f., paid. FENUGREEK.—Moroccan, 57s. 6d. to 60s., duty paid; shipment, 45s., c.i.f. MUSTARD.—English, 65s. to 85s., according to quality.

SENEGA.—Spot, 15s. per lb.; shipment, 14s. 9d., c.i.f., nominal.

SHELLAC.—F.O.T.N., 192s. 6d. per cwt.; No. 1, 207s. 6d.; F.O., 225s. to 275s., spot.

SQUILL.—White nominally 80s. per cwt. on the spot; new crop quoted at 75s.,

STRAMONIUM. — Continental LEAVES 85s. per cwt. spot.

STYRAX.—Spot, 21s. per lb.; shipment, 20s. 6d., c.i.f.

Tonquin Beans.—Para spot, 5s. 6d. per lb.; shipment, 4s. $10\frac{1}{2}$ d., c.i.f.; Trinidad, 7s. 6d., spot.

TRAGACANTH. — No. 1 ribbon, £132 10s. to £135 per cwt. No. 2, £125 to £127 10s. c.i.f.

TURMERIC. — Madras finger short on spot, sellers asking 185s. per cwt.; shipment, new-crop (March-April), 132s. 6d., c.i.f.

VALERIAN ROOT. — Spot: East European, 175s. per cwt.; Indian, 180s. Shipment: Continental, 172s. 6d. to 205s. 6d., c.i.f.

Vanillin.—Rates (per lb.) are now:—5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d.

WAXES. — (Per cwt.). BEES'.—Dar-es-Salaam, spot 485s. nominal; shipment, 480s., c.i.f. Abyssinian for March—April shipment, 405s., c.i.f. Sudanese, spot, 450s., shipment, 400s., c.i.f., nominal. CANDELILLA, spot, 465s.; forward, 460s. landed. CANNAUBA, fatty grey, spot, 315s., shipment, 287s. 6d., c.i.f.; prime yellow, spot, 620s.; shipment, 580s., c.i.f.

WITCH HAZEL LEAVES.—Spot quotations are 2s. 10d. per lb.

Essential and Expressed Oils

ANISE. — Chinese, 19s. per lb., spot nominal; shipment, 18s. 6d., c.i.f.

BERGAMOT.--Spot, about 84s. per lb.

Bots de Rose. — Brazilian, 21s. per lb. on the spot; shipment, 18s., c.i.f.

CAJUPUT.—Spot from 10s. per lb.

Cananga.—Spot, 27s. per 1b.

CARDAMOM.—English-distilled unquoted; imported, 260s. per lb.

CEDARWOOD. — Rectified 6s. per lb. on the spot.

Celery seed. — Quotations are from 105s, per 1b.

CHAMOMILE.—Smalls 640s. per lb.

CHENOPODIUM.—About 35s. per lb. in original containers.

CITRONELLA. — Ceylon, spot, 9s.; shipment, 8s. 9d. per lb., c.i.f. Formosan, 13s. in bond; January shipment, 12s. 6d., c.i.f.; Chinese, spot cleared; January shipment, 12s. 3d., c.i.f.

CORIANDER.—B.P. oil, 46s. per lb., spot. Cumin.—English distilled oil, 130s. per lb.; imported, 85s.

DILL.—Imported, 33s. per lb., spot, 28-lb. tins.

GRAPEFRUIT.—Florida, 19s. to 21s. per lb. spot.

LAVANDIN.—From 11s. to 12s. 9d. per lb. as to quality.

LAVENDER SPIKE.—Spanish, 12s. 6d. per lb. for original drums.

Lemon.—Californian virtually unobtainable, Sieilian, for shipment, 44s. per lb.,

Lemongrass. — Spot, 14s. 3d. per lb.; shipment, 14s. 3d., c.i.f.

ORANGE.—Floridan sweet oil nominally 7s. per lb. South African and Rhodesian, 7s. 6d., spot.

PATCHOULI. — Penang is 22s., duty paid and 19s., c.i.f., per lb.

PEPPERMINT. — Arvensis: Chinese spot, 18s.; shipment, 16s. 6d., c.i.f. Brazilian spot, 7s. to 7s. 3d.; shipment, 6s. 7½d. to 6s. 10½d. as to brand, c.i.f. Piperita: 1talian, 48s. to 70s., spot. American from 35s. to 38s. 6d. per lb. as to make.

Petitgrain.—Paraguay, 18s. 3d. per lb., spot; shipment, 17s. 6d., c.i.f.

PINE. — Pumilionis, 33s. per lb.; sylvestris, 9s.; abietis, 15s.

ROSEMARY. — Spanish genuine is 9s. per lb. spot.

RUE.—Spanish is 23s, 6d, per lb., spot. SANDALWOOD. — Spot Mysore, 109s, per lb. (238s, per kilo); forward, East Indian, 108s., c.i.f.

Tangerine. — Sicilian machine pressed, 52s. 6d.; sponge pressed, 65s. per lb.

YLANG-YLANG. — Best oil quoted about 145s, per lb.

UNITED STATES REPORT

NEW YORK, JANUARY 29: The price of ESERINE ALKALOID advanced \$5 per oz. to \$60, the SULPHATE \$58 and the SALICYLATE at \$55 were also up \$5 per oz. PROCAINE PENICILLIN was raised to \$20 per thousand million units, up \$1 from the previous basis. The end of the port strike had little effect on the CRUDE DRUG market, but the severe European winter weather might reduce future shipments to the U.S. Among ESSENTIAL OILS, Messina Lemon was higher per lb. at \$7.50, up 50 cents: Italian BERGAMOT at \$13.50, up \$1.25; and EUCALYPTUS, 70-75 per cent., at 95 cents, up five cents. Algerian GERANIUM at \$13.25, was lower by 25 cents, and East Indian Sandalwood at \$19.50 was down 50 cents.

NOTES ON NEW MEDICAMENTS

ADCORTYL-A IN ORABASE, — Constituents: Triamcinolone acetonide in an adhesive base containing gelatin, pectin, carboxymethyl-cellulose and other substances. Triamcinolone is a powerful anti-inflammatory steroid, and as the acetonide it is used for topical application in a variety of conditions. The base is designed to extend the use of the drug to oral conditions, as it permits prolonged application of the contained steroid to the oral mucosa.

ALUPENT—Chemistry: 1-(3-5-dihydroxyphenyl)2-iso-propylamino-ethanol sulphate. The compound is a sympathomimetic amine with powerful bronchodilator properties, and in the metered aerosol pack, an exact dose of the drug, in a particle size most suitable for absorption, is released as required. The drug closely resembles isoprenaline, which is the corresponding 3-4-dihydroxyphenyl derivative, and that drug is present in an aerosol pack as Medihaler-Iso, Iso-Brovon and Prenomiser-Plus. Other presentations of isoprenaline include Alcudrin, Isolevin, Neo-Epinine and Norisodrine.

AMINOSOL VITRUM. — Constituents: The amino-acids derived from protein, produced by the hydrolysis of casein. The amino acids are readily available for resynthesis by the body into protein, and in cases where ordinary feeding is impossible, casein hydrolysates can reduce the protein loss without throwing any strain on the digestive system. Amino-acids alone, however, may not supply sufficient calories to maintain the metabolic balance of the body, and to meet that need Aminosol is available together with glucose, with glucose and alcohol, and with fructose and alcohol. Amigen is another preparation of casein hydrolysate, also available with calorie-supplying additives. Trophysan, a mixture of pure amino-acids and sorbitol, is no longer marketed.

DYTAC. — Chemistry: 2,4,7-triamíno-6-phenylpteridine, also known as triamterene. The compound is a new type of oral diurctic, and is chemically unrelated to any therapeutically analogous products. Unlike the thiazide diurctics, which act principally on the proximal tubule of the kidney, triamterene acts on the distal tubule. In that respect the drug resembles spironolactone, but the action of triamterene appears to have a different pharmacological basis to that of aldosterone antagonism. The compound potentiates the action of the thiazide diurctics as well as that of spironolactone, and is therefore of value in refractory cases of cedema. Spironolactone is available as Aldactone-A; other non-thiazide diurctics are represented by Hygroton (chlorthalidone), Metopyrone (metyrapone).

FARINGETS,—Chemistry: Myristyl benzalkonium iodine chloride. The compound contains about 40 per cent, of fodine, and represents a group of substances known as fodophors. Such compounds consist essentially of iodine in loose combination with organic materials of high molecular weight. Those organic compounds act as both carrier and solubilising agents; most of the iodine is loosely bound to the carrier, but part is in the normal free or molecular state. Equilibrium exists between the two phases, and while the antibacterial properties of free iodine are retained, the irritant effects of ordinary strong solutions are inhibited. In Faringets, the carrier also has antibacterial properties. Iodophors are also present in Wescodyne surgical solution.

FRANOL EXPECT.—Constituents: Phenobarbitone, ephedrine, theophylline and guaiphenesin. The first three drugs are present in Franol, used for its bronchodilator and sedative effects; guaiphenesin, also known as glyceryl guaiacol ether, is an expectorant compound with no gastric-irritant properties. The drug reduces the tenacity and viscosity of sputum and thus extends the bronchodilator properties of the other constituents. Guaiphenesin is the main constituent of Respenyl, and with ephedrine and mepiramine is present in Nirolex, Pulmodrine contains guaiphenesin with methyl-ephedrine. In Synuson, the drug is present with ephedrine, phenacetin, and ipecacuanha.

SAVENTRINE,—Constituent: Isoprenaline in a long-acting form, Isoprenaline is a sympathomimetic amine, and has many of the pharmacological properties of adrenaline to which it is related, Isoprenaline is active orally, but its duration of action is short. In Saventrine, a sustained effect has been achieved by coating small inert granules with the drug, and enclosing them in separate layers of ethyl cellulose, the granules being finally incorporated in a tablet. The rate of isoprenaline release is related to the number of ethyl cellulose coatings, and a slow uniform duration of action over eight hours is claimed, Isoprenaline is also present in Neo-Epinine, and together with other bronchodilators in the long-acting products Fydal, Fydalex and Noradran Bitabs nocte.

SYNALAR,—Chemistry: Fluocínolone acetonide, Fluocinolone, also known as di-fluoro-ló-hydroxy prednisolone, is a fluorine-containing synthetic corticosteroid, and is characterised by possessing the greatest known anti-inflammatory potency when applied topically. That intense activity not only permits a low concentration of the drug to be used, but frequently evokes a favourable response in patients refractory to treatment with other locally-applied steroids. In common with re-

lated compounds, fluocinolone has no antibacterial properties, and neomycin is included in Synalar-N to treat any inflamed skin condition associated with a local infection. Other antibiotic containing products formulated on a similar pharmacological basis, are represented by Adcortyl-A with Grancodin, Cambison, Cortibiotic, Cortoderm-N. Efcortelan-N, Hydeltracin, Ledercort acctonide with neomycin, Predsol-N and many others.

QUATRASOL and DEMOCENE. — Chemistry: Cetyltrimethylammonium - 10 - undecanoic acid. The compound has both antibacterial, antifungal and antiseborrhoeic properties. Undecanoic acid and the zinc salt have been widely used as antimycotic agents; cetyl trimethyl ammonium salts are surface active compounds with antibacterial properties, and the new compound has an extended range of activity. Democene also contains some free undecanoic acid.

TERRA-BRON. — Constituents: Oxytetracycline, ephedrine and ipecacuanha. Oxytetracycline is a wide-range antibiot c, and is used extensively in the treatment of bronchitis. Ephedrine is a powerful bronchodilator; ipecacuanha stimulates bronchial secretions, and reduces the viscosity of sputum. The combination thus has antibacterial, spasmolytic and expectorant properties.

PRINT AND PUBLICITY

PUBLICATIONS Medical Propaganda

Manufacturers' leaflets, folders, booklets, etc., directed to doctors but available to pharmacists.

CAMDEN CHEMICAL Co., LTD., 61 Gray's Inn Road, London, W.C.1. Cyclospasmol (8-p. leaflet).

S. G. DUNCAN (PHARMACEUTICALS), LTD., 124 Union Street, Aberdeen. "Democene bactericidal fungicide" (card); "Quatrasol . . . an effective treatment for acne vulgaris (card).

GEIGY PHARMACEUTICAL Co., LTD., Wythenshawe, Manchester, 23. Micoren (31-p. booklet). "Tofraníl with Promazine. For the tranquil resolution of depression with agitation and/or anxiety" (3-p. folder).

IMPERIAL CHEMICAL INDUSTRIES, LTD., Pharmaceuticals Division, Wilmslow, Ches, "Synalar, Synalar-N. Dramatic rapidity of therapeutic effect" (11-p. booklet).

Leo Laboratories, Ltd., 15 Clipstone Street, London, W.1. Fucidin (16-p. booklet).

MERCK, SHARP & DOHME, LTD., Hoddesdon, Herts. "Benemid . . . in the treatment of chronic gout" (3-p. folder); "Aldomet for hypotension" (4-p. folder). "In depression, Tryptizol" (blotter), "Hydroderm is . . . more certain" (3-p. leaflet), "Periactin provides comprehensive, oral control" (3-p. leaf-

let), "Benemid . . . in the Treatment of Chronic Gout" (3-p. folder).

PHARMACEUTICAL SPECIALITIES (MAY & BAKER),

PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD., Dagenham, Essex: Oranabol (29-p. booklet).

ROCHE PRODUCTS, LTD., 15 Manchester Square, London, W.C.1. Gantanol (3-p, folder); "Libraxin , , gives his stomach peace of mind" (card); "Gantanol , , most effective sulphonamide for acute tonsillitis, acute pharyngitis, acute sinusitis" (22-p, booklet).

SMITH & NEPHEW PHARMACEUTICALS, LTD., "No sting . . . no refrigeration. Eppy for simple glaucoma" (3-p. leaflet).

MM. R. WARNER & Co., LTD., Eastleigh, Hants: Miscellanea. Monthly diary of events with information on Gelusil Lac, Urolucosil, Mandelamine, Pyridium and Tedral SA.

PRESS ADVERTISING

ODEDENT Co., Glebelands, Stoke Road, Cobham. Surrey, Odedent denture cleanser, In *Daily Express*.

SLIP PRODUCTS CO., LTD., Slip Works, Hatfield Road, St. Albans, Herts: Household Cleanslip. In *The People, Sunday Pictorial* and *Daily Mirror*.

WARRICK BROS., LTD., Warrex Laboratories, Tile Hill, Coventry: Rinstead pastilles. In News of the World, Radio Times and The People.



ILLUMINATED DISPLAYS: J. C. & J. Field, Slough, Bucks, have produced for their Lady Manhattan perfume, Cologne and talcum powder an illuminated displaypiece (size 15 x 7½ in.) for window or counter display. A light bulb (also supplied, with fittings) shines through cut-out window spaces to illustrate the Manhattan-skyline-by-night theme. Two side panels

Manhattan-skyline-by-night theme. Two side panels may be arranged to complement the centre-piece or used alone. At right: A flashing sign produced by Coty (England), Ltd., 3 Stratford Place, London, W.1, for their "Measured Mist." The sign, which measures 18 x 22 in. approximately, lights up to give a background of different colour and a brilliant "spray." It is operated by a 60-watt bulb and flash unit.



WILLS

MR. C. BOARDMAN, M.P.S., 5 Wynstay Road, MR. C. BOARDMAN, M.P.S., 5 Wynstay Road, cols, Wirral, Ches, left £13,852 (£13,753 net). MR. H. G. GREEN, 27 Epsom Road, Ewell, Irrey, who qualified as a chemist and druggist 1907, left £26,920 (£25,436 net). MR. V. W. CLAUDE HALE, F.P.S., 135 Staple-re Road, Eastwille, Britel, 5, 196, £2, 204, £2, 204

n Road, Eastville, Bristol, 5, left £3,996 (£3,784

MR. W. HARROWER, M.P.S., 89 Bold Street, leetwood, Lancs, left £1,885 (£1,207 net).

MR. W. K. HENDERSON, M.P.S., 143 Kingsay East, Dundee, left personal estate in England nd Scotland valued at £19,249.

MR. G. MACKIE. M.P.S., 19 Wilfred Road, amsgate, Kent, left personal estate in England nd Scotland valued at £1,828.

MR. J. F. W. MILLER, M.P.S., 651 Leigh toad, Leigh, Lancs, left £7,868 (£7,625 net).
MR. O. T. S. NEALE, M.P.S., 17 London Road, High Wycombe, Bucks, left £2,057 (£1,986 net).
MR. R. W. NOBLE, M.P.S., 48 OSDOTTRE ROAD, Resthourne, Success, left £2,045 (£7,901, net).

astbourne, Sussex, left £8,045 (£7,901 net). MR. E. A. ONYON, M.P.S., Old Bells Cottage, ye. Suffolk, left £2,848 (£2,597 net).

MR. L. S. PALMER. M.P.S., 12 Rousham Road, Setville, Bristol. 5. Glos, left £6,205 (£2,937 net).

MR. F. R. PARKER, M.P.S., The Pharmacy, farket Place, Bedale, Yorks, left £14,234 £13,947 net).

MISS KATE M. PEARSON, M.P.S., Guildown, Frenode, Combe Martin, Devon, left £23,654 £23,587 net).

MR, J. PICKERSGILL, M.P.S., of 69 High treet, Dorking, Surrey, left £3,771. (£3,590 net). MR, W. POPE, M.P.S., 16 Bradham Lane, Exmouth, Devon, left £8,419 (£8,362 net).

Mr. H. A. ROBERTS, M.P.S., 18 Clwyd Street, Ruthin, N. Wales, left £7,537 (£7,328 net).
Mr. W. E. ROBERTS, M.P.S., Gwennaul, Bromp-

ton Avenue, Colwyn Bay, Denbighs, left £9,772 (£9.673 net).

MR, W. H. B. SANDERS, M.P.S., 21 Kirkley ark Road, Lowestoft, Suffolk, left £16,591 (£14,610 net).

MR, C. L. J. TAYLOR, M.P.S.N.I., Far Hills, Derrychara, Enniskillen, co. Fermanagh, left personal estate in England and estate in Northern

MR. E. R. WILLIAMS, M.P.S., Green Lane, Great Barr, Birmingham, at one time a lecturer at Birmingham Technical College, left £9,576 (£9,486 net).

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Monday, February 4

BRADFORD BRANCH, NATIONAL PHARMACEUTICAL UNION, Midland hotel, Bradford, at 7.30 p.m. Annual meeting. Mr. E. J. Downing on "The Report of the Committee on the General Practice of Pharmacy."

HENDON AND EDGWARE BRANCH, PHARMACEUTICAL SOCIETY, Hendon Hall hotel, Ashley Lane, Hendon, N.W.4, at 8 p.m. Speaker from the Oral Hygiene Service on "Oral and Dental Hygiene."

STOCKPORT BRANCH, PHARMACEUTICAL SOCIETY, Belgrade hotel, Dialstone Lane, Stockport, at 8 p.m. Transparency contest.

Tuesday, February 5

CAMBRIDGE AND HUNTINGDON BRANCH, PHARMA-CEUTICAL SOCIETY, Owen Webb House, Gonville Place, Cambridge, at 8 p.m. Mr. C. E. Waterhouse on "The Examination of new Drugs and other Materials for Safety or Effi-

CROYDON BRANCH and ASSOCIATION, Swan and Sugar Loaf hotel, 1 Brighton Road, South

Croydon, at 8 p.m. Refresher course, Mr. J. W. Hadgraft on "Chemotherapeutic Agents."

GLASGOW PHARMACY CLUB, Craig's tearooms, Sauchichall Street, Glasgow, Whist drive.

GREAT YARMOUTH AND LOWESTOFT BRANCH, PHAR-MACEUTICAL SOCIETY, Pier hotel, Gorleston, at 7.45 p.m. Lecture and display of cosmetics by Yardley & Co., Ltd.

NORTH STAFFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, North Stafford hotel, at 7.45 p.m. Lecture on "A Journey to Jabel-Al-Akhdar."

SCHOOL OF PHARMACY, CHELSEA COLLEGE OF SCIENCE AND TECHNOLOGY, Manresa Road, London, S.W.3, at 7.15 p.m. Dr. J. Marks (Roche Products, Ltd., and Downing College, Cambridge) on "Antitussives."

WEST MIDDLESEX BRANCH, NATIONAL PHARMA-CEUTICAL UNION, Ealing town hall, London, W.5, at 8 p.m. Mr. E. J. Downing on "The Proprietor Pharmacist and the Report of the Committee on the General Practice of Phar-

Wednesday, February 6

BRISTOL COLLEGE OF SCIENCE AND TECHNOLOGY, Ashley Down, Bristol, 7, at 7.30 p.m. Post-graduate course, Mr. H. B. Coulson on "The Economics of General Practice."

EXETER BRANCH, PHARMACEUTICAL SOCIETY, Imperial hotel, Exeter, at 7.30 p.m. Annual dinner and dance.

LANCASTER, MORECAMBE AND WESTMORLAND BRANCH, PHARMACEUTICAL SOCIETY, Elms hotel, Bare, Morecambe, at 7.30 p.m. Annual dinner and dance.

SHEFFIELD BRANCH, PHARMACEUTICAL SOCIETY, College of Technology, Pond Street, Sheffield, 1, at 7,30 p.m. Revision course, Dr. G. F. Somers on "The Pharmacological Assessment of New Drugs."

Of New Drugs.

Society for Analytical Chemistry, Meeting room, Chemical Society, Burlington House, Piccadilly, London, W.1, at 7 p.m. Three papers on "Particle-size Analysis: Some Methods Used in the Sub-sieve Range."

Western Pharmacists' Association and Chelegie School of Pharmacy Streets Association.

SEA SCHOOL OF PHARMACY STUDENTS' ASSO-CIATION, College of Science and Technology, Manresa Road, London, S.W.3, at 7.30 p.m. Mr. N. A. Herdman (Duncan, Flockhart & Co., Ltd., on "Pharmacy is Fun."

Thursday, February 7

BIRKENHEAD AND WIRRAL PHARMACISTS' ASSO-CIATION, Riverside restaurant, New Brighton, at 7.30 p.m. Dinner and dance.

MANCHESTER PHARMACEUTICAL ASSOCIATION, lecture hall, Literary and Philosophical Society, 36 George Street, Manchester, at 7.45 p.m.

Members' get-together night, SOUTH-EAST METROPOLITAN BRANCH, PHARMACEU-TICAL SOCIETY, Yorkshire Grey hotel ballroom, Eltham Green, London, S.E.9, at 6.45 p.m. Annual dinner and dance.

Friday, February 8

AND SOUTH-EASTERN EDINBURGH Branch, Pharmaceutical Society, 36 York Place, Edinburgh, at 7.45 p.m. Mr. G. Teeling Smith (director, Office of Health Economics) on "The Price of Good Health."

HULL CHEMISTS' ASSOCIATION and BRANCH,

NATIONAL PHARMACEUTICAL UNION, Royal Station hotel, at 8 p.m. Mr. H. G. Moss (a member of the N.P.U. Executive) on "Stop Press—the latest from Mallinson House."

Advance Information

BRADFORD PHARMACY STUDENTS' ASSOCIATION, Fountain hall, Bradford, Annual dinner and dance, February 28.

& N.Wales Border February 10-16 4-way cold tablets 1 Actifs capsules 5 2 Alka-Seltzer 5 1 2 2 Anadin ... 1 ... Askit 6 2 1 4 3 2 1 2 Aspro Atrixo 7 5 7 5 Beecham powders 6 . . . Bristow's lanolin shampoo ... 2 3 4 3 4 3 3 3 Brylcreem • • • Buttercup syrup ... Christy's skin emulsion 5 3 4 5 Coldrex 1 1 1 2 Cuticura 2 1 Dentu-creme Dinnefords compound magnesia 2 2 Eno Fruit Salt Euthymol tooth-paste ... 2 2 2 1 2 2 2 2 Farley's ... 1 ••• Fibrosine 1 ___ Germolene 1 Goddards cream and embrocation ... Go Gay hair spray ... 3 3 ... Gon tablets ... 1 2 Kleenex 2 3 3 3 4 3 — 3 3 3 Loxene shampoo ... Milk of Magnesia tablets 3 Macleans tooth-paste 2 5 4 4 4 4 4 Mac throat sweets ... 3 . . . Penetrol inhalant Phensic ... 6 6 6 6 6 6 4 ... Phyllosan ... 1 Radox bath salts Rinstead pastilles Sanatogen tonic wine 2 2 2 2 2 2 2 — 2 — Setlers Venos 2 2 2 VO5 conditioner shampoo spray Get-Set ... Yeast Vite ... 2 2 2 2 2 Zestone ...

COMMERCIAL TELEVISION Figures in these columns represent number of appearances of the "spot" during the week.

PATENTS

COMPLETE SPECIFICATION ACCEPTED From the "Official Journal (Patents)," January 16

21-nitrogen substituted steroids of the pregnane series and methods of preparing same. American Cyanamid Co. 919,439.

Steroid compounds and processes for their preparation, Roussel-Uclaf, 919,434.

Steriod compound, processes for preparing it, and compositions incorporating same, Roussel-Uclaf. 919,435.

Manufacture of steroids, Upjohn Co. 919,686. Carbamyl and thiocarbamyl substances, methods for producing same and applications thereof. Français Etat. 919,458.

insect repellent compositions comprising sulphoxides and methods of repelling insects therewith, Phillips Petroleum Co. 919,785.

Amido-phosphazides and process for their duction. Farbenfabriken Bayer, A.G. 919,868.

Thiono-phosphoric acid ester and process for the production thereof, Farbenfabriken Bayer, A.G.

O-heterocyclic phosphoramidate and phosphoramidothioate esters and their production, Dow Chemical Co. 919,913,

Phosphonic and thiophosphonic acid esters. Farbenfabriken Bayer, A.G. 919,908,

Thiophosphoric acid esters. Farbenfabriken Bayer, A.G. 919,813.

Seed containing compositions. Allied Chemical

Corporation, 919,674.

Filters equipped with a cluster of filtering tubes. J, R. A. Berline, 919,470.

Oscillograph construction, Sinclair Oil & Gas Co. 919,538.

Diazotype material, Chemische Fabriek L. Van Der Grinten, N.V. 919,812.

British patent specifications relating to the above will be obtainable (price 4s, 6d, each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from February 27.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," January 16

For instruments and apparatus for use in diagnostic and analytical tests in connection with the blood (10)

HEMASTIX, 823,959, by Ames Co., Inc., Elkhart, Indiana, U.S.A.

For instruments and apparatus for use in testing and analysing the blood (10)

HEMTEST, B823,969, by Ames Co., Inc., Elkhart, Indiana, U.S.A.

For electrically heated devices for warming beds (10)

GLOWMATIC, 838,152, by Frank Lister, Ltd., Ovenden, Halifax, Yorks.
For containers for holding cosmetics (21)

MARGARET, 832,495, by Artistic Containers, Ltd., Brownhills, Staffs

From the "Trade Marks Journal," January 23

For all goods for use in photography (1) VISCOMAT, 829,496, EKTACHROME-X, 836,112, by Kodak, Ltd., London, W.C.2 For sensitized photographic paper (1)

SELEX, 833,475, by Ferrania, S.p.A., Milan, Italy.

For perfumes, ean-de-cologne, non-medicated toilet preparations and cosmetics, lipsticks, nail lacquers, dentifrices, preparations for the hair and soaps (3)

MESSIRE, 832,814, by lean d'Albret, Paris, France.

For shanipoos (3)

DIMPLES, 834,024, by Lincoln Hair Products, Ltd., London, W.5.

For lipsticks, rouge and cosmetic preparations (3) MISTY RED KISS, 834,781, by Saga (Plastics), Ltd., London, E.8. For all goods (3)

NORSVEEP, 834,827, by Persilfabrikken, A/S, Oslo, Norway.

For all goods but not wax polish or any goods of the same description (3)

SWAY, 836,416, by County Laboratories, Ltd., Brentford, Middlesex,

For dentifrices and non-medicated toilet preparations for the teeth and gums (3)

MORAL 837,851, by County Laboratorics, Ltd., Brentford, Middlesex.

For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles (not included in other classes), sachets for use in waving the hair, shampoos, soaps and essential oils (3)

NODAN, 838 467, by Edgar Morgan Williams. Chatham, Kent. Device with letters 1L, 838,783, by Cussons Sons & Co., Ltd., Manchester, 7. For cosmetics, hair lotions and dentifrices, perfumed soap, perfumes and non-medicated toilet preparations (3)

ARONDE, 838,484, by Columb'a Products Co., Ltd., Binstead, Ryde, Isle of Wight.

For perfumes, toilet preparations (non-medicated), cosmetic preparations, dentifrices, toilet articles (not included in other classes), soaps and essential

PERCHANCE, 838,523, SWEET NOTHINGS, 838,945, by Romney Cosmetics, Ltd., London, S.W.1.

For non-medicated preparations for the hair; cosmetics (3)

INECTONE, 838,781, by Rapidol, Ltd., London. W.7.

For perfumes, toilet preparations (non-medicated). cosmetics, hair lotions, dentifrices, and essential oils, but not including soap (3)

TEREL, B839,083, by Lever Brothers Port Sunlight, Ltd., Port Sunlight, Ches.

For detergents (not for use in industrial or manufacturing processes); cleaning, polishing, scouring

and abrasive preparations (3)
METGLAS, 840,301, by Co-operative Wholesale Society, Ltd., Manchester.

For herbicides and pesticides (5)

ADVANCE, 808,904, by Deutsche Advance Produktion, G.m.b.H., Cologne-on-Rhine, Ger-

For pharmaceutical preparations in powder form, containing nutrients, minerals, trace elements vitamins and hormones, and being for geriatric use (5)

PROFILACE, 828,682, by Richard Neville Maddison, Headington, Oxford.

For pharmaceutical preparations and substances for human and veterinary use (5)

NORACYCLIN, 831,603, by CIBA, Ltd., Basle,

For pharmaceutical compounds for use in the treatment of diseases involving a deficiency of progesterone (5)

GESTOVIS, B832,605, by Francesco Vismara, S.p.A., Casatenovo (Como), Italy.

For surgical dressings for animals (5)

PETNIK, 833,940, by Pctnix Co., Iver Heath, Bucks. For pliarmaceutical preparations and substances

(5)

E-NOGE, 834,235, by Southon Laborator'cs, Ltd., Bexleyheath, Kent. DYTOSEL, 836,913, by Stevenson, Turner & Boyce, Ltd., Guclph, Ontario, Canada.

For pharmaceutical substances and preparations, all containing sulpha drugs (5)

SULPRED, 834,777, by Norma Chemicals, Ltd., London, N.W.3.

For all goods (5)

C-PRIN, 835,379, by S. Maw Son & Sons, Ltd., Barnet, Herts, MENDET, 835,829, by Bradley & Bliss, Ltd., Reading, Berks, YAL-TOX, 836,031, by Baywood Chemicals, Ltd., London, W.C.1. WELLCOSET, 839,219, by Wellcome Foundation, Ltd., London, N.W.1. SEDUNILA, 840,026, BEROCYCLIN, 840,038, DELICOVIT, 840,047, by C. H. Boehringer Sohn, Ingleheim-on-Rhine, Germany.

For pharmaceutical preparations and substances all in solid form, for the treatment of coughs (5) BENYLET, 835,798, by Parke, Davis & Co., Detroit, Michigan, U.S.A., and Hounslow, Middlesex.

For disinfectants (5)

DEMON, 836,702, by Domestos, Ltd., Newcastle-on-Tyne.

radiological contrast media for pharmaceutical use (5)

OSBIL, 836,889, by May & Baker, Ltd., Dagenham, Essex.

For pharmaceutical preparations and substances, all in tablet form (5)

FRANIES, 837,680, by New Era First Aid Service, Ltd., Manchester, 14, Lancs. For algicides and herbicides (5)

LETUMAL, THALTOX, 836,980-81, by Richardson & Starling, Ltd., Winchester, Hants. For pharmaceutical antacid preparations (5)

NACIDETE, 839,336, by E. R. Squibb & Sons, Ltd., London, W.1.

For pharmaceutical preparations for use in the treatment of humans (5)

DRANABON, 837,125, by S. G. Duncan (Pharmaceuticals), Ltd., Aberdeen.

For pharmaceutical, veterinary and sanitary preparations and substances, disinfectants and deodorants; all containing chemical compounds of chlorine (5)

CHLORSUL, 838,249, by Albright & Wilson (Mfg.), Ltd., Oldbury, Birmingham.

For pharmaceutical and veterinary preparations containing sulphonamides or sulphonamide derivatives (5)

BONASULPH, 838,767, by Pfizer, Ltd., Sandwich, Kent.

For pharmaceutical products for human and veterinary use (5)

RONADRON, 838,847, by Rona Laboratories, Ltd., London, W.C.2.

For pharmaceutical preparations for use in discouraging smoking (5) OPP-O-NIC, 839,077, by George Basil Somer-

set, Fishponds, Bristol.

For insecticides (5)

DURETHRUM 105, 839,977, by Durazone (Sales), Ltd., London, N.3.

For thermometers for measuring menstrual body temperatures (9)

CYCLAMETER, B835,859, by Tool Importers, Ltd., London, W.2.

For cameras, projection apparatus and enlargers, all being photographic, and parts and fittings (9) SONNOVAR, 836,426, by Carl Zeiss, Wuerttemburg, Germany.

For photographic instruments and apparatus, and parts and fittings (9)

BOCAMA, 838,777, by P. M. Cox, Ltd., London, E.C.4.

For non-medicated toilet paper (16)

SANOTEX, 835,640, by Smith & Nephew, Ltd., Welwyn Garden City, Herts,

CONTEMPORARY **THEMES**

Subjects of contributions in current medical and technical periodicals.

PRIMATE DISEASES infectious to man. Vet. Rec., January 26.

FELINE INFLUENZA, Vet. Rec., January 26. NITROFURAZONE POISONING. An outbreak of, in ducklings. Vet. Rec., January 26.

SCIENTIFIC COLLABORATION in Europe. New Scientist, January 24.

'CHILDREN'S CANCER related to climate. New Scientist, January 24,

CHLORHEXIDINE. The effect of, in the peritoneal cavity, Lancet, January 26.
An ovulation inhibitor, Excretion of ovarian

steroids in patients treated with. January 26.

INSULIN. Immunoassay of with insulin antibody precipitate. Lancet, January 26.
Precorticotrophin. Distribution of, in blood.

Nature, January 26.

6B-HYDROXYCORTISO1 (4-PREGNANE-6B, 11B, 17a, 21-TETROL-3-20 DIONE) in liquor amnii, Nature, January 26.

A RADIOACTIVE MARKING INK. Nature, lanuary

CHOLESTYRAMINE. Treatment of pruritus of obstructive jaundice with. Brit. med. J., Janu-

CHLORINATED INSECTICIDE content of human body fat in southern England. Brit. med. J., January 26.

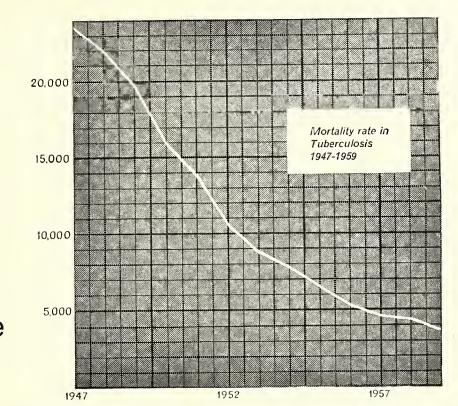
A.B.O.B. Controlled trial of, in measles, chickenpox, and mumps. *Brit. med. J.*, January 26. RUO DISTRIBUTION SYSTEMS IN HOSP:TALS. Trends in. *Amer, J. hosp. Pharm.*, December. DRUO

LOTIONS FROM OINTMENT BASES, Amer. J. hosp. Pharm., December.

Suspensions in pharmaceutical practice. Amer J. hosp. Pharm., December.

SILICONE FOAM. Detection of small sessile colon cancers with. J. Amer. med. Ass., January 5.

ŒSTRONE, A further total synthesis of, Proc. Chem. Soc., January.



The

WANDER

comprehensive range in

TUBERCULOTHERAPY

The House of Wander specializes in providing a wide range of tuberculostatics for hospital and domiciliary requirements throughout the Commonwealth.

The Wander range is most comprehensive as regards choice of administrative forms and dosage combinations of PAS, B-PAS and Isoniazid.

aliu isoiliaziu.			
Sodium Aminosalicylate B.P.	'AMINACYL' SODIUM	CACHETS TABLETS CRYSTALLINE POWDER for injection solution BULK POWDER	
Calcium Aminosalicylate B.P.C.	'AMINACYL' CALCIUM	CACHETS POWDERS TABLETS GRANULATE	SINGLE DRUGS
Calcium Benzamidosalicylate	CALCIUM B-PAS 'WANDER'	CACHETS POWDERS BULK POWDER	
Isoniazid B.P.	'NICETAL'	TABLETS	
Sodium Aminosalicylate B.P. with Isoniazid B.P.	'PASINAH'	CACHETS '302' ,, '6 PH' ,, '10 PH' ,, '25' ,, '33' ,, '50'	CONCURRENT REGIMENS
Calcium Benzamidosalicylate with Isoniazid B,P.	'B-PASINAH'	CACHETS POWDERS	

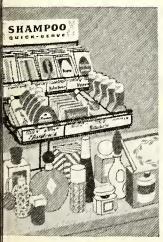
Hospital or trade terms gladly sent on request

A. WANDER LIMITED, 42 UPPER GROSVENOR STREET, LONDON W.1.



What's taken the cake in merchandising?...





It's like having an extra sales assistant

Most display units *take* space, this new idea from County Laboratories *makes* it. Enables you to keep your present counter arrangement exactly the way it is and gain extra display space too.

County's sturdy Spacemaker is golden plated. Carries the three top-selling shampoos. Silvikrin, Vosene, Bristow's. In all their forms—Sachets, Bottles, Tubes.

Order your Spacemaker from your County Laboratories Representative. This silent salesman is absolutely free—doesn't even cost you an inch of counter space.

COUNTY LABORATORIES LTD., BEECHAM HOUSE WEST, BRENTFORD, MIDDX. TEL: ISLeworth 4171

WOOI.

2/4d. and 3/10d. PACKETS

FOR SAMPLES WITH TRADE AND WHOLESALE PRICES WRITE TO CARTER BROS, OF SHIPLEY (YORKS).



(REGP)

For COUGHS, COLDS, CHEST & THROAT ailments and also for ASTHMA and BRONCHITIS.

MIXTURE 2/3 size; 13/- doz. 3/6 (family); 21/- doz. TROCHES 1/10 size; 9/2 doz. All plus 25% P.T.

BROOK, PARKER & Co. Ltd ASHFIELD, BRADFORD 7. Also at Glasgow.

PREPARE FOR THE WINTER DEMANDI Special Offer, particulars

MAUND & BERG

For Pharmacy Fittings, Complete Installations, or Individual Items...

PRICE LIST CD4 ON REQUEST 175-9 OLD STREET · LONDON E.C.1

Tel: CLErkenwell 1782



The non-greasy lightning cure for eczema, mange, and all skin troubles on Dogs. Cats, and other animals.

INTRODUCTORY CRUFT'S SHOW OFFER

Exmarid Brand Lotion, retail price 3/6d. Trade Price 24/- per dozen plus 6/- per dozen purchase tax, is being offered for a limited period 12 for the price of 11, purchase tax excluded. Available direct, or through Messrs. Butler & Crispe Ltd., and other wholesalers.

Exmarid Brand Condition Tablets, retail price 3/6d. for 50, Trade Price 28/- per dozen, being introduced for the first time at CRUFT'S SHOW, 1963. Also available for a limited period at the above terms.

EXRID LIMITED

44 Whitehorse Street, Baldock, Tel:- BALdock 3345/6/7

ANNOUNCEMENT

ECM LABORATORIES AND **NEW COLUBLEU**



colubleu 8'6 inc. p.t. drops

special formula to reduce pain and eye redness We apologise to those Chemists who, due to the heavy demand, are still awaiting delivery of their Colubleu orders, but we expect to be able to complete all these deliveries during the coming week.

For those Chemists who have not so far taken advantage of the bonus, we have extended the offer until February 9th - don't delay, order now!

E C M LABORATORIES

76, NEW BOND STREET · LONDON W.1

Telephone: HYDe Park 2201



BRAND NEW HEAVY GAUGE

FREE delivery within 14 days. N. 5cotland, Ireland, I.O.M. 10% extra

71" high × 34" wide, 12" deep with 6 shelves as illustrated. C.W.O. or C.O.D.

Each shelf will hold over 3 cwt. Shelves adjustable every 2". Stove enamelled dark green. White enamel units 50% extra.

100			No. of		Price each	Extra
Height	Width	Depth	Shelves	Price	3 or more	Shelves
71″	34"	9"	6	58/-	56/-	7/-
71"	34"	12"	6	60/-	58/-	8/-
71"	34"	15"	6	69/-	67/-	9/6
8S"	34"	12"	6	68/-	66/-	8/-
8S"	42"	12"	6	86/-	84/-	11/-

HANDY DRAWER UNIT **BRAND NEW**

42" high, 13" wide, 12"
deep, 20 DRAWERS: 5"
wide, 3" high, 11½" long.
Stove enamelled dark
preen. Direct from Direct from Write manufacturers. Write now for list of other sizes.

C.W.O. or C.O.D.

Buy direct from the manufacturers.

ROCHDALE METAL PRODUCTS
Dept. C.D., Shawclough Works, Waterfoot,
Rossendale, Lancs. ROSsendale 2450
Contractors to H.M. Government and United Kingdom Atomic Energy Authority



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NOW AVAILABLE!



BONUS PARCEL OFFERS!

CONTACT YOUR USUAL WHOLESALER OR WRITE DIRECT TO

DEVON HAIR AIDS LIMITED · CRADOCK RD · LUTON · BEDS

EXCEPTIONAL VALUE UNSURPASSED QUALITY LOW PRICE

EST. 1777

Telephone: CLErkenwell 3060 (15 lines) Switchboard open 8.30 a.m.—4.45 p.m. Automatic Recording 4.45 onwards

YOU CAN BE CERTAIN OF

"SUNRISE"

THE NEW SUPER QUALITY

BRITISH MADE

TURCO

WASHING SQUARE

 $(12'' \times 12'')$

IN THREE ATTRACTIVE PASTEL SHADES
—PINK, BLUE, LEMON and WHITE

EACH SQUARE IN CELLOPHANE ENVELOPE

Retail 1/11

14/6 Dozen

6 Dozen Lots Less 5%

ORDER WITH CONFIDENCE FROM

BUTLER & CRISPE LTD.

80/84 Clerkenwell Road, London, E.C.I

QUALITY PAYS DIVIDENDS FOR THE CO-OPERATIVE

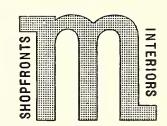


THE LUTON & INDUSTRIAL CO-OPERATIVE SOCIETY LTD., MANCHESTER STREET, LUTON

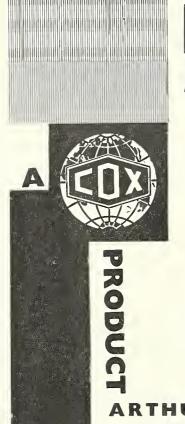
Within two hours of opening—this pharmacy was inundated with shoppers drawn by the colourful and attractive interior.

The overwhelming success of this new pharmacy for the Luton Co-operative Society has proved once again that the latest methods of merchandising, with bespoke design and planning, inevitably results in a large increase in turnover.

MYERS OF OLD ST. the pharmacy fitters



UNISEC HOUSE, 141-147 OLD ST., LONDON, E.C.I TEL. CLE 6381



RHEUMATIC CREAM

An effective and long acting rubefacient

available in 7 Chemists Own Name — Own Brand pack designs and in the COX House Style.

Cartoned Tubes in Showouters of I Dozen Tubes with display card.

Trade Price

I dozen tubes 18/- 3 dozen tubes @ 17/- doz. 25% PT

Retailing selling price 3/- per tube. Full Size Sample free on request.

ARTHUR H. COX & CO. LTD BRIGHTON SUSSEX

You would be justified in drawing the attention of your medical friends to

'falapen'

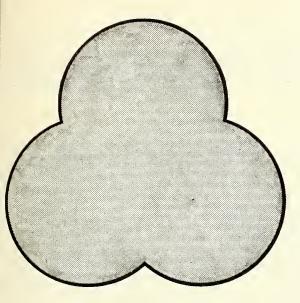
as an inexpensive and very convenient way of giving, by mouth, Penicillin G, still the most generally useful antibiotic

One tablet of **falapen** every twelve hours (the usual dosage) costs (basic NHS) less than 1s. 2d. per day



OUR STANDARD PUBLICATION IS AVAILABLE ON REQUEST

DUNCAN, FLOCKHART & CO LTD



Dome has for a number of years in North America concentrated exclusively on the formulation of preparations specifically designed to meet the needs of consultants and practitioners treating skin conditions.

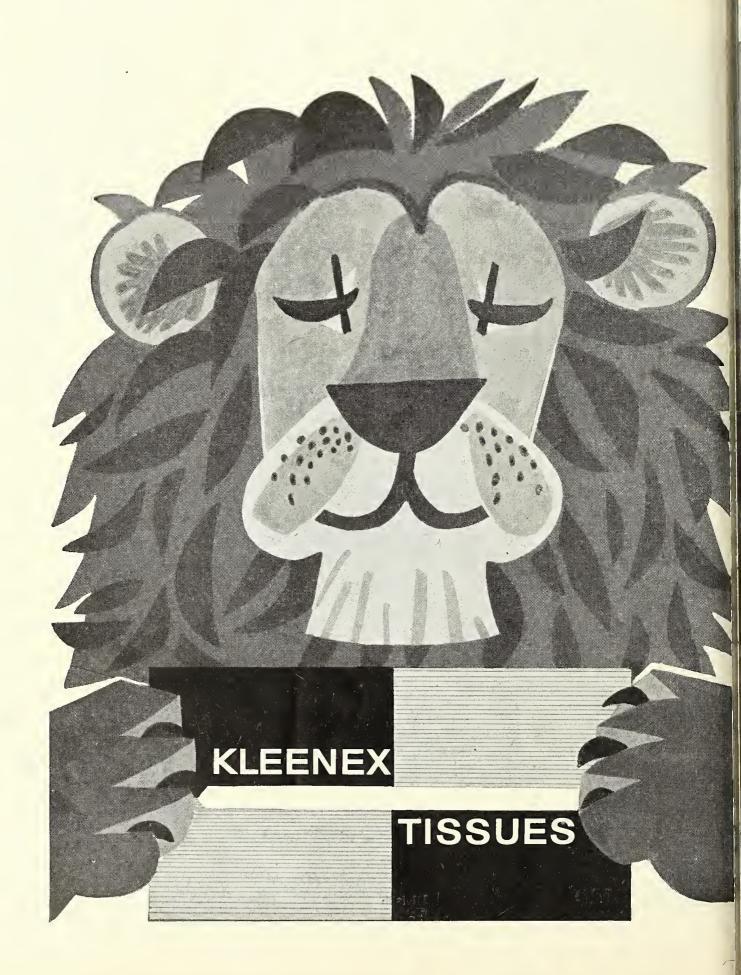
Now, for the first time in the United Kingdom, DOME is applying this accrued specialist knowledge in a new approach to dermatological prescribing, specially designed as a service to the medical and pharmaceutical professions.

In this age of rapid medical advance, with the multitude of products which have appeared as a result of such progress, DOME alone will concentrate on solving the problems of treatment, in terms of prescribing and dispensing in a single field of medicine—the Company's undivided attention is focussed on the furtherance of knowledge and ease of treatment in dermatology.

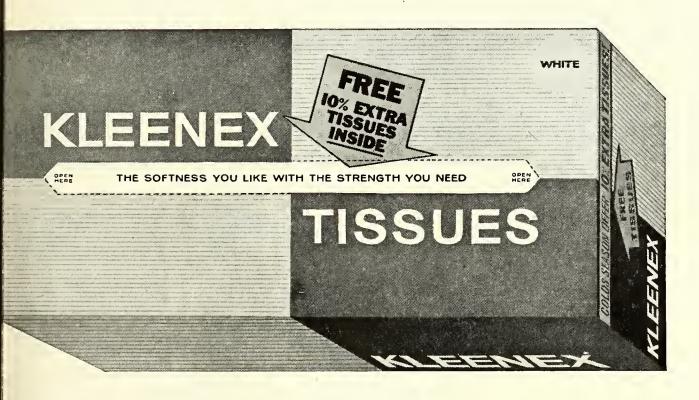
Dome synonymous with dermatology



How to get the lion's share of tissue sales...



display this special Kleenex winter offer!



E LION'S SHARE of tissue sales *always* comes to Kleenex* sue stockists. That's because two out of three regular tissue users mand Kleenex. And with colds about, there's a special winter offer help you increase sales and establish new customers—10% extra sues *free* in all Kleenex 2/9 Regular and 1/- Handy white packs.

ELION'S SHARE of advertising support also comes to Kleenex ckists. Kleenex advertising is heavier than for any other brand and it's the *only* tissue advertised on TV. Helps you sell more eenex than ever before!

ake sure of your share of tissue sales

DER SPECIAL OFFER PACKS WHILE STOCKS LAST!

EENEX — BRITAIN'S BEST-SELLING TISSUES

BIGGER THAN EVER

1963-LIMITED PERIOD



ROTOpan-a new W.C Deodorant Fitting which simply "clips-on" by an anodised wire. Retailing at 1/- complete.

ROTO - a new Perfumed (All Purpose) Tablet in three perfumes, Lavender, Bouquet and Rose. Retailing at 9d each.



ROTOfresh-the comp deodorant and cleaner for the toilet—now with a wire fitting for extra security in addition to rubber grip. Retailing at 1/9 complete.





ROTOsan JUNIOR AIR CONDITIONER.

Attractive Plastic Holder with Stand; containing ROTOsan Disc in choice of 3 fragrances: Rose, Lavender, Bouquet. Top unscrews to take refill.

Retails at 2/3 complete.



AEROSOLS

ROTOspray.

A concentrated air freshener with outstanding fragrance. Retailing at 3/9.

An extra strong general purpose insecticide with a pleasant perfume. Retailing at 3/9.

'EASY TO ENTER'

FREE Entry Forms for all your customers will

WITH OVER 100 ADDITIONAL

PRIZES TO BE WON

be forwarded with all ROTOsan Bonus Orders

CULLINGFORD OF CHELSEA

ROTOsan SALES OFFICE, WEBBER ROAD, KIRKBY

FULL DETAILS of BONUSES & COMPETITION are on the way to YOU



A fine old line takes a bright new form

DOANS BACKACHE PILLS

At your wholesalers NOW!

Oh, my aching back

New formula for rheumatic pain

Good news! Great news! News for sufferers from nagging backache, lumbago, pains around the joint and other rheumatic troubles! Doan's new Backache Pills are made to an improved formula which quickly subdues pain. Doan's new Backache Pills give profound relief from rheumatic aches and muscular stiffness Don't suffer any longer. Be able to bend and stoop freely again! Enjoy restful nights! Doan's go to work promptly, thoroughly, giving ease and comfort, helping you back to health and vitality. So, if nagging backache or rheumatic pains trouble your body or limbs—try Doan's for happy relief. Ask for the new Doan's in the bright new yellow pack.

DOAN'S BACKACHE PILLS Doan's have come up-to-date with this new dress and an improved formula containing analgesics. Extra-heavy national advertising throughout the year . . . so look for an increase in Doan's trade. You can confidently recommend Doan's new Backache Pills for quick relief from rheumatic and muscular aches and pains. Order a supply now of Doan's new Backache Pills . . . their revised price list means bigger profits for you.

Striking advertisements throughout 1963 in



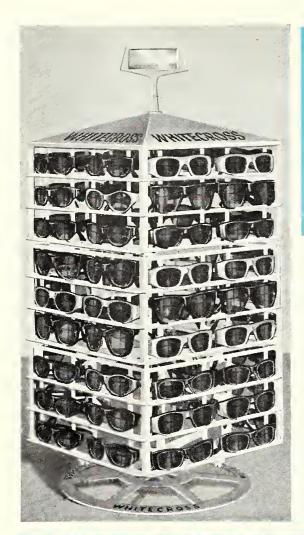
and over 70 provincial evening papers

New Price List— Bigger Profits for you!

	rraue per uoz.	P. Lax per doz.	ı.r.p. per pkt.
Small size	16/8	4/2	2/4
Medium Siz	e 34/0	8/6	4/9
Large size	53/8	13/5	7/6

FOSTER-McCLELLAN PRODUCTS LIMITED
Cornwall Road, Hatch End, Middlesex. Tel: Hatch End 1055 & 4050

DOAN'S OINTMENT . BILAX . MENTEX . CUTIPEN & NUTRINAIL



For glamour without glare . . .

WHITECROSS

A range of the latest continental fashion sunglasses for the 1963 season

THE WHITECROSS 'BONANZA'

A distinctive revolving display stand supplied FREE with an assortment of 12 dozen men's and ladies' fashion sunglasses retailing from 2/6 to 7/6 each

THE 'BONANZA' UNIT CONTAINS:

	12 PIECES EACH					12 PIECES EACH				
	•	6683	Men.	Black & Shell	2/6		6637	Ladies.	Black Only	3/1
	9	6682	Ladies.	Asstd. Colours	2/6	•	6680	Men.	Black & Shell	5/-
		6688	Men.	Black & Shell	3/6	•	6821	Ladies.	Asstd. Colours	5/-
		6689	Ladies.	Asstd. Colours	3/6		1286	Ladies.	Gold Colour	6/9
	•	6809	Men.	Black	3/11	•	6673	Men.	Black & Shell	7/6
	0	6809	Men.	Shell	3/11		6467	Ladies.	Asstd. Colours	7/6
The above glasses are also supplied separately										

SEE US AT BLACKPOOL — Hotel Metropole Room No. 13 February 4—8.

THE WHITEGROSS 'SUN-BEAM'

An elegant revolving display stand supplied FREE with an assortment of 6 dozen men's and ladies' fashion sunglasses retailing from 7/11 to 15/6 each

THE 'SUN-BEAM' UNIT CONTAINS:

12 PIECES EACH 6 PIECES EACH

- 6675 Men. Black & Shell 7/11
 6640 Ladies. Gold Colour 9/11
 6713 Men. Black & Shell 10/6
 9926 Men. Black & Shell 15/6
- 6555 Ladies. Asstd. Colours 10/6 6551 Ladies. Asstd. Colours 15/6

The above glasses are also supplied separately

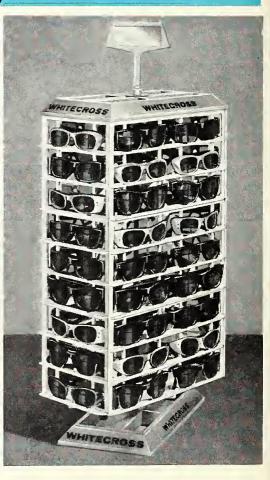
Ask your usual Wholesaler for illustrated catalogue showing our complete range retailing from 2/6 each



WHITECROSS

Optical Company

(Proprietors, Fredk. Lehmann Co. Ltd.) Frederick Works, Rochester Place, London N.W.I Telephone: GULliver 6731





longer

As from January 1st, 1963, Retail Price is 9d. each and Trade Price 6/- per dozen.

Fewer new ones to break in because Cannon teats last

THE CANNON RUBBER MANUFACTURERS LTD ASHLEY ROAD · TOTTENHAM · LONDON N.17



Backed by nation-wide

Yaxa, Europe's most famous name for modern deodorants are now fully geared up to become Britain's most popular brand. These two generous bonus offers introduce the complete Yaxa range together with the latest addition, Yaxa No 5 deodorant cologne:-

12 FOR THE PRICE OF 11!

All Yaxa orders for all products for immediate or long term delivery will be invoiced at the rate of 12 for the price of 11!

ORDER NOW! This profitable offer open only from March 6 to April 30, 1963

special bonus terms. Make up mix parcels to your own choice of unbroken dozen pac of any or all products from the Yaxa range to qual for special bonus stock-in terms in addition normal trade discounts.

5% DISCOUNT on orders of £5 and over 10% DISCOUNT on orders of £10 and over

The Yaxa editorial style of advertising has alrea proved phenomenally successful in Europe. It w achieve the same success here!



vertising to 9,566,000 women

ed in large spaces throughout 1963 in:—
'MIRROR 5"× whole columns and 10"× 3 columns.
le pages, black and white, women's magazines:—
IN'S MIRROR...SHE...HONEY...VANITY FAIR
IN & BEAUTY.

Selling Yaxa to a total of 9,566,000 women readers

ntrating the Yaxa Message especially on the er set between 16-34, reaching 62% of all women 6-34 and 41% of all women over 35.

delping to sell Yaxa for you!

Yaxa. Here is every variety of deodorant and antiperspirant from one firm... Yaxa deodorants combine effectiveness with the kind of fragrance women prefer. The Yaxa range is most modern and flexible and new additions are constantly being made.

Full Yaxa-freshness range

- YAXA LUXURY ANTI-PERSPIRANT SPRAY
- YAXA ROLL-ON ANTI-PERSPIRANT
- ☐ YAXA BODY POWDER
- YAXA STICK DEODORAN
- YAXA DEODORANT COLOGNES No 1, 2 & 10 EACH WITH ITS OWN EXOTIC FRAGRANCE



Small and often...

We have specialized successfully for many years in this advertising technique of 'small and often'—whether in launching a new product



or in expanding the sales of a well-established line

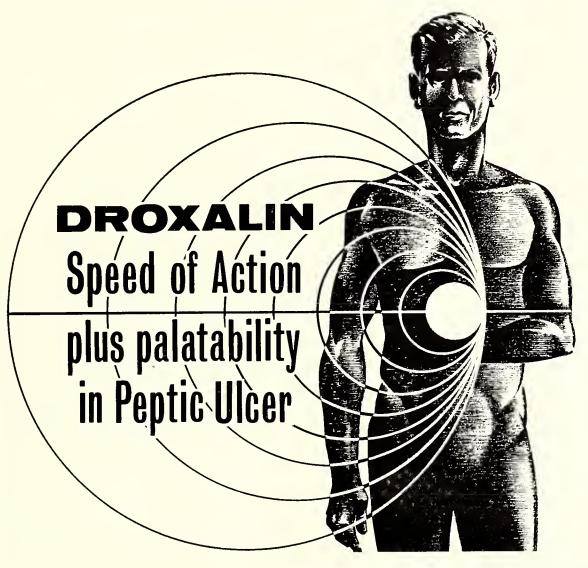
We know—and indeed we have occasionally adopted—the argument for the large space in a few media; but on balance, and especially in our particular field of Biochemic Medicine, we have proved

that the 'small and often' formula is the better one . . . for all concerned.

Reproduced here is the 'Zief' 2 inch single column advertisement which is appearing once a week in: DAILIES: Daily Herald, Daily Mail, Daily Sketch, Daily Telegraph. SUNDAYS: News of the World, People, Sunday Express and ONCE A MONTH in the Radio Times.

PHARMACISTS! DISPLAY DROXALIN NOW

Tie-up with the promotion now under way and secure extra profits



ACTIVE INGREDIENTS:

Dried Aluminium Hydrox¹de Gel. B.P. 162 mg.
Magnesium Trisilicate B.P. 162 mg.

PACKING & PRICE:

Cartons of 30, 3/- retail and dispensing packs of 180.

New, heavy Droxalin Medical Advertising and promotions to Doctors mean more Droxalin prescriptions. This in turn will produce greater counter sales from repeat business by satisfied patients.

Droxalin's unique efficacy in all forms of hyperacidity allied to superior palatability is winning this Acid Adsorbent more friends every day.

Display Droxalin on *your* counter and gain extra profit from the Acid Adsorbent tablet that Doctors prescribe.

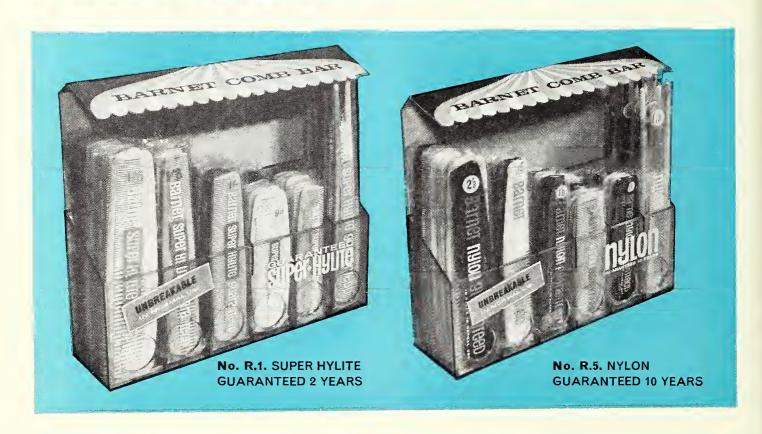


Acid Adsorbent Tablets

THE PHILLIPS, SCOTT & TURNER COMPANY · SURBITON · SURREY

make comb profits without actually trying with NEW

Barnet comb Bars



Barnet combs sell on sight from these new selfservice dispensers. Showing a range of combs in a mere few inches, each is ready packed and clearly priced, and most types GUARANTEED.



Choose from eleven cabinets to suit your own business—and why not BUY EARLY ON BONUS (see details right).

ORDER FROM YOUR WHOLESALER NOW!

E. R. HOLLOWAY SALES LTD., Bessemer Road, Welwyn Garden City, Herts. Tel: Welwyn Garden 21111



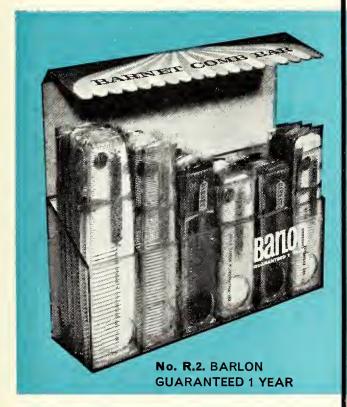
FREE DORLON NAILBRUSHES with every order for large cabinet

BUY NOW ON

BONUS

Every 6 doz. cabinet ordered before Feb. 15th, 1963 comes with FREE introductory box of the new Barnet DORLON FILLED NAILBRUSHES. Guaranteed for one year sale value 10/6d. And with every small cabinet $\frac{1}{4}$ doz. FREE COMBS.

With No. R.35 a free box of family size nail brushes retail value 15/-.



REFILLS

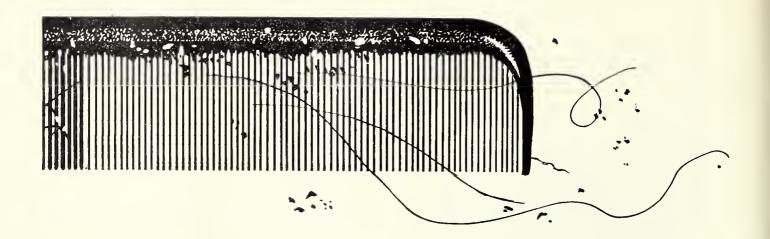
SHOW YOU BONUS PROFITS
ALL YEAR ROUND

Every time you refill a Barnet Comb Bar you make extra profits. Packed 1 dozen, refills are obtainable from all Barnet wholesalers.

See us at Blackpool, Room 15 Metropole Hotel, 4-8th February





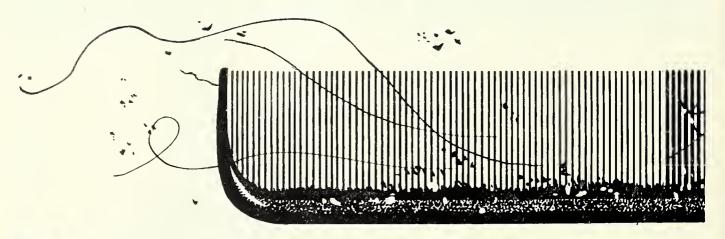


FOR THE 3 OUT OF 4 PEOPLE

who have seborrhoeic dermatitis of the scalp

For the scalp-scratchers, shoulder-brushers and comb-clutterers, there's welcome relief with selsun Suspension. In clinical studies SELSUN effectively controlled 92 to 95 per cent of cases of common dandruff. It keeps the scalp free of scales for one to four weeks relieves itching and burning after only two or three applications. SELSUN is remarkably simple to apply and rinse out while washing the hair. It takes little time. No complicated procedures or messy ointments. In 1, 2 and 4 fluid ounce bottles with full directions for use on special label, supplied on each bottle.

SELSUN (Selenium Sulphide, Abbott)





LABORATORIES LIMITED · QUEENBOROUGH

The manufacturers of

announce the introduction of a

SPECIAL OFFER

Supported by National Advertising in WOMEN'S MAGAZINES

With effect from Friday, 1st February, and until 28th February, "Twin-Packs" of Mene Towels will be offered to consumers at a special price.

Women will buy 2 packets at a time, and so

INCREASE YOUR TURNOVER

TRADE PRICE

Size "0" Twin Packs 32/8d. per dozen

Size "I" Twin Packs 37/4d. per dozen

Size "2" Twin Packs 44/4d. per dozen

SELLING PRICE

Size "0" Twin Packs 3/8d. per Twin Pack SAVING 4d.

Size "I" Twin Packs 4/2d. per Twin Pack SAVING 4d.

Size "2" Twin Packs 5/0d. per Twin Pack SAVING 6d.

Subject to usual terms and quantity discounts

YOUR MONETARY MARGIN REMAINS THE SAME

Take advantage of this Special Offer— Stock and Display Twin Packs and

SELL MORE

Mene Towels

ROBINSON & SONS LTD. Wheat Bridge Mills, Chesterfield.

Cutipen and Autrinail

Change of distribution arrangements

From 1st February 1963 all supplies of Cutipen and Nutrinail, and their refills, should be obtained from your usual wholesaler, or direct from the manufacturers given below.

Watch these pages for announcement shortly.

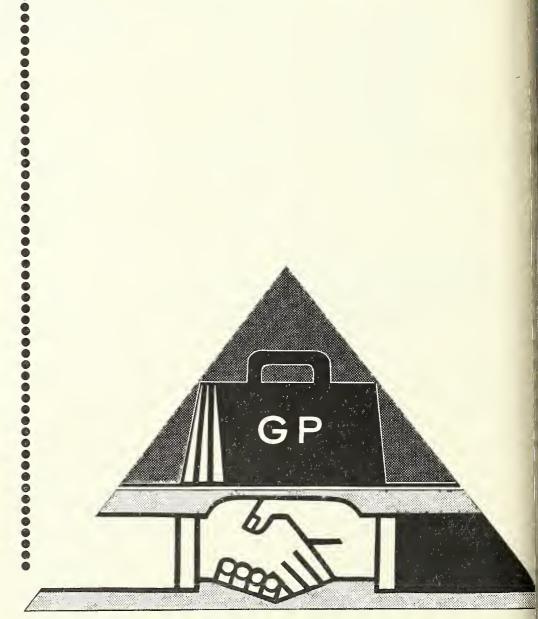
Generous BONUS
ADVERTISING Campaign
New Style of PACK.

FOSTER-McCLELLAN PRODUCTS LTD.

Cornwall Road, Hatch End, Middlesex Telephone: Hatch End 1055 and 4050

WHAT DOES

THIS MEAN TO YOU



GROWTH THROUGH PARTNERSHI

This is the sign of a toiletries any. It is no ordinary company. It is Pepsodent Ltd.—Britain's fore-firm in the field. So what? A good ion. The answer is even better. It to you Gibbs Pepsodent—or G.P. u'd probably like to call it—means derable business, more business perhaps you ever looked for from gle manufacturer of health and y aids. It is not difficult to see why.

Is Pepsodent products cover an excepally wide range of needs. They cater for y kind of consumer, man, woman and d. There are toothpastes—for whiter n, for sweeter breath, for fresher mouths; for anti-decay-the-fluoride-way. There shampoos—for the oily market and the the medicated and the cream. Products havers, skin cream and soap for beauty-cers, and so the list goes on . . .

adds up to a lot of profit for you. Especially when emember a couple of other things. Firstly, G.P. are the best sellers in their respective markets. ndly, G.P. brings you the best in service. You're g the greatest when you sell Gibbs Pepsodent.



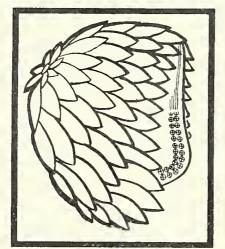
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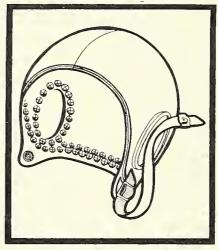
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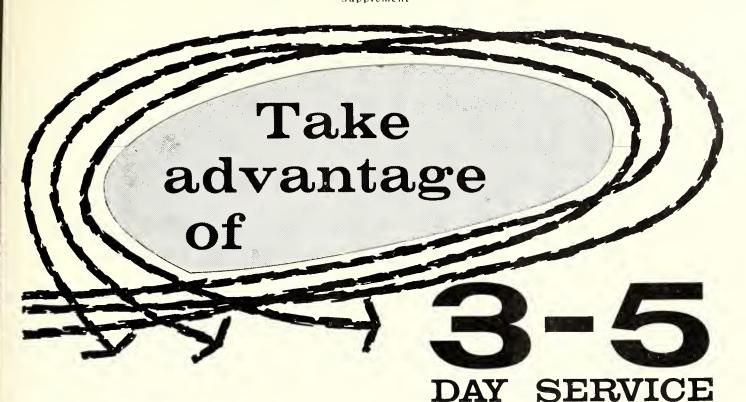
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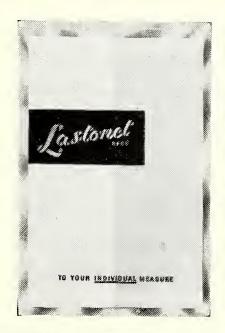
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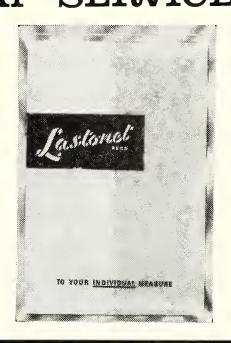
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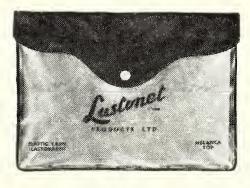
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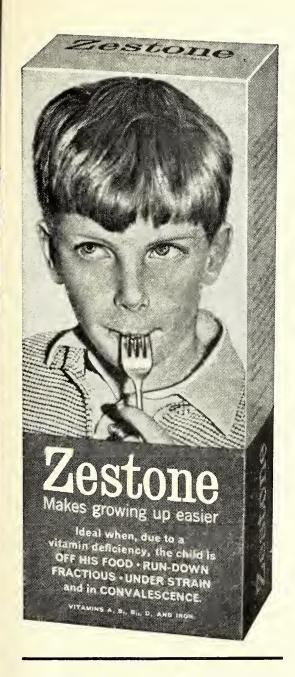
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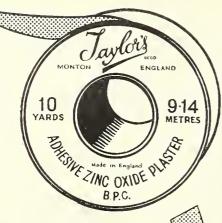
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NO OUTSIDE LABOUR NEEDED TO ASSEMBLE

Fitting or refitting your shop with Remploy-Lundia prefabricated shelving saves you money. It needs no outside labour to assemble . . . it costs far less than custom-built installations . . . and it is remarkably adaptable.

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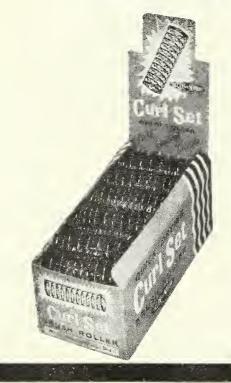
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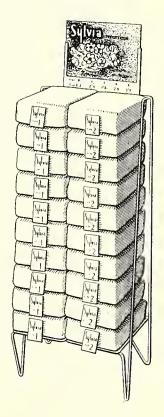
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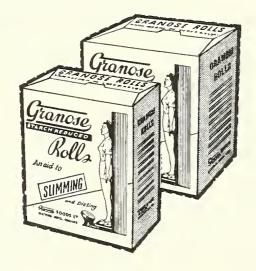
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- * All metal precision 35 mm.
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Three apertures 8-11-16.

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GRAY'S INN ROAD (1 door away), Unusual scope for chemist (one displaced by redevelopment). Shop, basement and upper part, to let on lease, Rent £350 p.a, Premium £2,000. J. W. Bettyes, P.P.V.I. P.A.L.P.A, 86 Eccleston Square, S.W.1. VIC. 1074/5.

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CHEMISTS, main shopping road, Crickle-wood, Turnover £12,938, p.a. Under management, Well equipped corner premises with upper part let off at £250 p.a. until June, Rent £432 p.a. Lease 9 years to run, Price £2,500, s.a.v., no offers, Apply Hugh Davies, 42 Chase Side, Southgate, N.14, PAL, 5544.

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Dispensing Assistant

Applications are invited for the post of Dispensing Assistant, The successful candidate will be required to work under the supervision of the Chief Pharmacist, Residential accommodation (female) available, Excellent Staff Social Club.

Applications giving particulars of age, experience and qualifications, together with the names of two referees, to the Physician Superintendent as soon as possible. C 626

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The Animal Health Trust invites applications for new posts at the Equine Research Station's Forensic Laboratories, as follows:—

- chemistry with research experience of detoxicating mechanisms (or allied subject) to assist with research and routine analyses. Minimum age 26 years; in tial salary, within range £1,350 x £50—£1,650, F.S.S.U. Honours Graduate in Chemistry or Bio-
- (2) Two Experimental Officers, or Senior Technicians with degree or equivalent qualification and experience in analytical techniques. Minimum age, 25 years; salary within range £880—£1,200.
- Two Technicians or Assistant Experimental Officers, with passes at "A" level in Science Subjects of G.C.E. Minimum age, 18 years, Salary within range £450—

Interviews will be held February/March,

Application Forms available from:—The Secretary, Animal Health Trust's Equine Research Station, Balaton Lodge, Newmarket, Suffolk, C 4995

BRENTWOOD GROUP HOSPITAL MANAGEMENT COMMITTEE

Pharmacist

required to work in Group under Chief Pharmacist. Hospitals situated within 30 miles of London, Frequent electric trains. Salary scale £725 to £970 p.a. Applications with names of two referees to Chief Pharmacist, Harold Wood, Essex,

C 7954

GLENSIDE HOSPITAL, STAPLETON, BRISTOL

Dispensing Assistant

required, preferably with Certificate of the Society of Apothecaries, Salary according to age, £290 at 18, £440 at 22 or over, plus £50 if qualified, rising to eventual maximum of £580 (£660 if qualified). Higher commencing salary may be payable to experienced applicants. Applications giving full details and names of two referees should be sent to Secretary.

C 7941

ROYAL EYE HOSPITAL, ST. GEORGE'S CIRCUS, S.E.1

Locum Pharmacists

required for March. Apply to Secretary (WATerloo 4477). C 7964

LEEDS (GROUP B) HOSPITAL MANAGEMENT COMMITTEE, SEACROFT HOSPITAL. YORK ROAD, LEEDS, 14

Senior Pharmacist

required at the above hospital (Infectious Diseases and Paediatrics) and for duties within the Group as required. Salary £810 p.a. rising to £1,060 p.a. Terms of service in accordance with Whitley Council agreement, Apply with names of two referees to the Group Secretary. C 7968

SELLY OAK HOSPITAL, BIRMINGHAM, 29

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Salary age 18 £290, age 21 £390 (plus £50 if certificated), age 22 and over £440-£580 or £490-£660, to holders of Apothecary Hall Certificates, Locum appointments will be considered. Written applications, giving details of experience, age, naming two referees, to Administrator.

THREE COUNTIES HOSPITAL, ARLESEY, BEDFORDSHIRE

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Applications are invited for Dispensing Assistant, Salary and conditions as Whitley Council scale, £425 at age 22 or over, rising to £575 per annum, Accommodation available for single man or woman applicant, Applications, stating age and experience, togetherwith the names and addresses of two referees, should be sent to The Medical Superintendent.

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required for duty in an active Psychiatric Hospital. Five-day week, Salary range £810 to £1,060 plus London Weighting, Temporary accommodation available for single person, Further information on request from Chief Pharmacist, Epsom 5234, Apply immediately naming two referees to the Group Secretary.

YORK "A" AND TADCASTER HOSPITAL MANAGEMENT **COMMITTEE**

Senior Pharmacist

required for Group Pharmaceutical Service based at the Maternity and Fulford Hospitals, York.
Salary scale £810 x £35 (6) x £40 (1) to £1,060 p.a.
Applications stating age, qualifications, experience and names of two referees to Group Secretary, Bootham Park, York.

C 7972

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CHIEF PHARMACIST H.M. PRISON SERVICE

Male registered Pharmacist, aged 25 or over, required for a Chief Pharmacist, Category II, post at H.M. Prison, Pentonville, London, N.7.

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STARTING PAY ABOVE MINI-MUM in some cases for previous N.H.S., Government Service or other comparable experience. Additional allowance of £25 for higher qualifications, FIVE-DAY WEEK, POST SUPERANNUABLE under N.H.S. superannuation scheme. Annual leave allowance of 3 weeks and 3 days (4 weeks after 10 years' service), plus $8\frac{1}{2}$ days paid public and privilege holidays, Apply Establishment Officer, Prison Commission (WM 1), Horseferry House, Dean Ryle Street, London, S.W.1. C 7966

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Salary on agreed National Health Service scale plus London allowance.

Apply by letter stating age, experience and qualifications to Air Ministry, C.E.2M, Princes House, Kingsway, London, W.C.2, or enquire at any Employment Exchange quoting City O/N 125. C 7965

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ANTOINE CHIRIS, LTD., require a young chemist (male) to be responsible for quality control, including analysis of essential oils and use of gas chromatography. The position offers good prospects for future advancement, excellent working conditions, with free luncheons and pension scheme. Applications should be sent to The Technical Director, Bridge House, Tadworth, Surrey. C 5001

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John Wyeth & Brother Limited, a leading Ethical Pharmaceutical house, has a vacancy for a medical representative in West London.

Wyeth is forward thinking and progressive and thus offers a unique opportunity for a sales minded man of ability.

A background in medicine or pharmacy would be an advantage but applications will be considered for men who have a G.C.E. standard of education and an ability to assimilate technical knowledge.

The remuneration offered is commensurate with the responsibility of the position and a company car is provided. A pension scheme is in operation.

Applications from suitably qualified gentlemen should be sent to the Southern Divisional Sales Manager, John Wyeth & Brother Limited, Huntercombe Lane South, Taplow, Maidenhead, Berkshire.

C 7962



EVANS MEDICAL LTD

Evans Medical Ltd., have a vacancy for a representative to call upon retail pharmacists within the Bristol area. Age limits 24–40. A Company car will be provided and may be used for private running. The appointment is pensionable and the man appointed must undergo a medical examination. Previous experience of the trade is essential and existing contacts with retail pharmacists would be an advantage. Initial salary will be according to experience and will be subject to regular review in the light of progress. In addition to pensionable salary, a commission scheme is in operation.

Written applications in confidence to :-

The General Home Sales Manager, Evans Medical Ltd., Speke, LIVERPOOL 24.

C 7971

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PROCESS WORKER used to tablet making required for the manufacturing department of a well-known ethical house in N.1 district, London, ultimately to take charge of manufacture, Salary according to experience and ability, five-day week. Please apply to Box C 5005.

REPRESENTATIVE for old-established northern chemists' wholesaler. Connection amongst mid-Yorkshire retail chemists essential. Preferably resident Leeds/Bradford. Older man considered. Salary, commission, expenses, car provided. Box C 5012.

SALES REPRESENTATIVE required for the London postal districts, excluding S.E. and S.W., calling on chemists, corn stores and pet shops for nationally advertised medicinal and veterinary products of high repute, Remuneration by salary, car provided, expenses allowed and superannuation scheme available. Applicants should be under the age of 30 and resident locally. Apply in writing, stating age, experience and salary range to Phillips Yeast Products, Ltd., Park Royal Road, London, N.W.10.

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LADY DISPENSER (Apothecaries' Hall) available for locums March onwards, Thoroughly experienced, Box C 5010.

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The duties and responsibilities of this position would include visiting consultants in medicine and surgery, and the conveying of the latest technical information concerning the company's products to all staff within the hospitals.

A background in medicine or pharmacy would be an advantage but applications will be considered from men who have a G.C.E. standard of education and an ability to assimilate technical knowledge.

The remuneration offered is commensurate with the responsibility of the position and a company car is provided. A pension scheme is in operation.

Applications from suitably qualified gentlemen should be sent to the Southern Divisional Sales Manager, John Wyeth & Brother Limited, Huntercombe Lane South, Taplow, Maidenhead, Berkshire.

C 7961

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